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With the Australian Voluntary Hospital Abroad.

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Having volunteered for the front immediately after England had declared war against Germany, my services were accepted by the Australian Voluntary Hospital, a unit organized by the Countess Dudley, and with Lieut.-Colonel Eames as Commanding Officer.

We went into camp at Ranelagh Club almost at once, and I was instructed to procure an X-ray outfit for active service use.

This commission was somewhat difficult, as most of the available material and apparatus had been commandeered by the War Office.

Eventually, however, thanks mainly to Mr. Schall, a most useful portable apparatus, with all requisites, was delivered at camp within forty-eight hours, this being the limit of time allotted me for the purpose.

On Friday, August 20, 1914, we left Ranelagh for Southampton, and were immediately shipped on a transport for service abroad.

We shortly afterwards discovered that our destination was Havre, which place we reached at two o'clock in the morning, and disembarked at four o'clock.

Owing to the rapid retreat of the Allied armies, it was decided to move the base from Havre to St. Nazaire, and, after several night scares and a sojourn of three days and nights in a huge shed amongst horses, guns and packages, with the floor covered with straw and manure, we again embarked on a ship named the "Victorian," and, after a trip lasting thirty-six hours, we reached St. Nazaire, a pretty seaside resort.

Immediately on arrival we were ordered to unpack and prepare to receive wounded.

A large house which had been occupied by a French doctor as a private hospital was procured as a hospital for officers, and, near by, our tents were pitched in a large vacant paddock, adjoining the public gardens. Here most of the officers and men slept, and large tents were pitched for the wounded men.

We have had as many as two hundred and fifty wounded in it at one time.

For my department two convenient basement rooms were allotted, and with a few alterations, quite a convenient X-ray room, with an adjoining dark-room were arranged. Before the cases of apparatus arrived, the hospital was half full of wounded, and most of them were cases requiring X-rays.

However, within seven hours of their arrival, the wooden cases were unpacked, the apparatus grouped together, and, by nine o'clock that night, everything was ready for use.

Our accumulators were new and uncharged, so, for the time being, we used a 12 volt accumulator from the Rolls-Royce car which we have as an ambulance, and we managed to procure another 12 volt accumulator in the town.

Our first case was Lieutenant Hardinge, of the 15th Hussars, and son of the Viceroy, and the second was Count Bassewitz, of the 2nd Dragoons, a German officer.

These cases and several others were operated upon the same night.

At present I shall not go into detail as to the equipment; sufficient to say that I employ a 12-inch coil worked by accumulators.

As an assistant I have a very capable man procured from Siemen's Factory, who volunteered to come with me. Up to this date we have already examined over one hundred and fifty cases.

Skiagrams are taken of all interesting and necessary cases. In some instances several ones of the same case are taken.

Foreign bodies are localized and fractures are rayed before and after the treatment.

A summary of our first hundred and fifty cases is as follows:—

	Screen.	Skiagram.	Total.
Fractures	12	24	36
Bullets	5	5	10
Shrapnel	11	17	28
Shell	11	9	20
Miscellaneous	39	17	56
Total	78	72	150

It will be observed that the majority of cases are injured by shrapnel, i.e., the leaden balls contained in the shells, of the size of small marbles.

Next come those cases injured by fragments of shell itself, whilst those with bullets in them come third on the list.

The miscellaneous cases comprise mainly those through which some foreign body has passed, and on which the X-rays have been applied to ascertain whether any fragment has been left behind.

The fractures all comprise cases caused by the entrance of one of the above foreign bodies, and in very many cases the foreign body has also been present amongst the fragments, to say nothing of the piece of garment which usually accompanies shrapnel as well.

Later on a fuller description of the cases will be given, and also a more complete classification.

Some most remarkable cases have been met with, which will be later dealt with fully, in collaboration with the operating surgeon.

Various viscera have been penetrated, and complete recovery occurred in many cases.

So far the most remarkable was one in which a piece of shrapnel shell had entered the right lung,

passed through the diaphragm and liver, into the intestine, and passed naturally the day after examination.

This case is under the care of Mr. Thring, of Sydney, and will be recorded later in due course.

In many cases the shrapnel balls have entered the knee joint, in one case the twelfth dorsal vertebra and in four the lungs.

Some few of the fractures have been clean breaks, whilst the majority have been most extensive comminutions.

A few illustrations accompany this short paper, which will give an idea of the cases met with. The base is now being moved elsewhere from St. Nazaire, and we are now daily expecting orders to pack up and advance.

* * * *

Since writing the above summary of cases, another thirty-five have been examined by the X-rays, and most of them have pieces of shrapnel shell in them.

In one interesting case the soldier was shot in the leg, and the lead of the bullet was found in his trousers, whilst the casing remained in the wound, and was subsequently removed by Mr. Thring.

THE ASSOCIATION OF VARIOUS ABDOMINAL LESIONS WITH CHRONIC APPENDICITIS.

By **C. Gordon Shaw, M.D. F.R.C.S. (Eng.),**
Melbourne.

It is well recognized now—thanks to the illuminating work on the subject by Moynihan and the Mayos—that a diseased appendix can produce symptoms which simulate very closely the symptoms produced by disease of the stomach and duodenum, the clinical picture of ulcer of these organs being very frequently reproduced by a chronically inflamed appendix in such a way that a differential diagnosis between the two conditions is difficult. But I do not think it is clearly and generally recognized that a chronic appendicitis is very often only one of several lesions which may occur associated together in the abdomen.

This was first brought home to me several months ago by the fact that in several patients in whose cases I diagnosed a chronic appendicitis, and removed this organ, which was in every case diseased to a considerable extent, the improvement was not so marked as had been expected, or certain groups of symptoms cleared up, while other symptoms were only partially relieved.

The symptoms of which these patients complain can generally be divided into three groups: (1) symptoms of indigestion which have been so fully described by Moynihan and others under the title of appendical dyspepsia; (2) symptoms which I am compelled by the facts which face me to put down to a general intoxication, and which include malaise and a general disinclination and inability to work, often amounting to prostration, headaches, attacks of giddiness, loss of weight and certain nervous symptoms as insomnia, nervous irritability, and even as occurred in two of my patients, attacks of hysteria; (3) attacks of abdominal pain occuring from time to time. All my patients suffered from these attacks at short intervals, the longest interval was four weeks, and the pain was most often situated in the right side of the abdomen, or in the left iliac region. At times it was definitely appendical.

In this class of case I have found that, though by a careful consideration of the signs and symptoms a definite diagnosis of chronic appendicitis can be made, and though a diseased appendix is removed at operation, complete relief is not always procured. In some cases the indigestion is entirely relieved, in others the cure is only temporary, the patient suffering from a recurrence several weeks after the operation. In others again the improvement is merely partial, the patient stating that certain symptoms are completely relieved, but that he still has some slight pain or discomfort after food, or he may merely get an attack of indigestion from time to time, which attack is generally relieved by sodium bicarbonate. As examples of this last group I may mention two cases. The first is that of a woman, aged 25, who complained of pain, fulness in the epigastrium, eructations and vomiting after food. There was definite tenderness over McBurney's point, but not in the epigastrium; a test meal showed a total acidity of 53 and free hydrochloric acidity of 23. After an appendicectomy, she had no vomiting whatever, but the pain and flatulence continued.

The other case is that of a male aged 18. He used to get severe pain about one hour after food, with vomiting, and on several occasions he vomited small quantities of blood. Appendicectomy relieved him completely for about ten months, but then he began to get occasional attacks of pain after food, but no vomiting.

Sherren states that about 75 per cent. of cases of appendical dyspepsia are cured by appendicectomy, and he gives it as his opinion that the failure to cure in the remaining 25 per cent. is due to the presence of alimentary stasis.

Again, with reference to the second group of symptoms, viz., headaches, malaise, etc., I have noticed several times that though the indigestion may be completely and permanently cured, yet these symptoms continue, and do in fact produce so much disability that the patient is rendered more or less unfit to perform his work, whatever it may be.

The most common symptoms persisting in these cases are attacks of headache which, while they last, completely prostrate the patient.

It is with some diffidence that I enter a discussion of the third symptom group, viz., attacks of abdominal pains most frequently situated, as far as my experience goes, in the right side of the abdomen or the left iliac region. My hesitation in attacking this subject is due to the fact that I must admit I can come to no definite conclusion as to the causation of the attacks. A somewhat limited experience of these cases at operation shows no definite changes which are constantly present in these and not in other subjects who do not complain of pain. Furthermore, I cannot make up my mind as to the best method of treatment. That they are not due to attacks of appendicitis is plainly shown by the fact that they persist after an appendicectomy. The

character of the attacks was quite unaffected by this operation in three cases which came under my notice. The pain is often colicy in nature, i.e., it occurs in very severe attacks lasting a few minutes, and then, apart from a slight soreness, completely disappears, to recur again after a short interval.

I have not often seen the patients during an attack, as it is seldom severe enough to warrant the calling in of the surgeon, but in the cases that I have examined when the attack was present, physical examination disclosed very little. There was merely some slight tenderness over the right side of the abdomen, no rigidity and a normal temperature, a pulse rate of about 82 or 84, and the patient certainly did not appear to be ill. However, there is no doubt that the pain is considerable. An examination of the urine disclosed the presence of indican and bacilli.

In three cases a bismuth meal examination showed stasis in the caecum and ascending colon of 45, 48 and 70 hours' duration respectively, and this clearly indicates a partial chronic obstruction at the hepatic flexure, a diagnosis which was verified at operation. But obstruction at this point is not sufficient to produce the conditions under consideration, for I have in many cases found this delay in the caecum and ascending colon with hepatic obstruction both by an X-ray examination and at the operation, in spite of the fact that the patients have not complained of abdominal pains.

Two cases of a very acute character may throw some light on this obscure condition. The first case is that of a man aged 47. He complained of severe abdominal pains which came on the day before admission. He vomited after everything he took to eat. The bowels had not operated since the onset of the pain.

On admission his temperature was 100.2°, pulse 88, and respiration 20.

An abdominal examination showed absence of movement with respiration; there was considerable tenderness, most marked over the appendical area, and some rigidity over the lower part of the abdomen. The right flank was dull on percussion. On rectal examination very marked tenderness was found on the right side.

In this case a diagnosis of acute appendicitis was made; the abdomen was opened, but the appendix was found to be quite normal. The ascending colon was slightly distended, but the prominent feature about it was the presence of considerable engorgement of veins and a general hyperæmia. The ascending colon was also somewhat œdematous, and there was a small amount of clear free fluid in the right flank. There was also a well-formed veil of membrane, as is so frequently seen in this situation, extending from the colon to the peritoneum on the posterior abdominal wall. The transverse colon appeared healthy. In this case it appeared that there was nothing which could be relieved surgically, and the abdomen was closed up again. Severe abdominal pain continued, and the condition of the patient became very bad. Accordingly, two days after the first operation, the abdomen was again opened, this time above the umbilicus. The condition was seen to have advanced considerably, and there was now no doubt whatever about the state of the ascending colon. Membranous band and adhesions were found at the hepatic flexure, and there was a definite kink here, but no apparent obstruction; however, on breaking down the membraneous bands the gas which distended the ascending colon was seen to pass on into the transverse colon, and within a minute the engorgement had subsided to a very considerable extent, and the condition of the bowel was much improved. Owing to the low condition of the patient and the presence of a fair amount of fluid in the right flank, it was thought advisable to put in a drain tube, but with further experience I am convinced that this was unnecessary. Immediately after the operation the patient stated that all pain was gone, and he recovered completely.

The second case was a female aged 21. She had been ill with severe pain in the right side of the abdomen for one week. There had been no vomiting and the bowels had been open daily. The temperature was 99°, pulse 104, and respiration 24. There was general tenderness over the abdomen, but most marked over McBurney's point.

The operation disclosed obstruction at the hepatic flexure by bands of adhesions. In both these cases the condition was one of partial intestinal obstruction caused by acute kinking at the hepatic flexure, and the kinks in each case were well maintained by thin, well-organized membranes, the appearance in both cases being most innocent. There was also some slight strangulation of vessels, the veins of course suffering more than the arteries. These two conditions combined caused stagnation in the ascending colon, with a certain amount of infiltration of the walls of the colon and the production of a mild peritonitis. That this is the pathology in these acute cases I have no doubt, but I am not prepared to be dogmatic concerning the cases of pain of a chronic or sub-acute nature. I am inclined to think, however, that the nature in all these classes of cases —acute, sub-acute, and chronic—is the same, and that they vary only in degree. That the obstruction is situated at the hepatic flexure with stasis in the ascending colon and caecum is certain. The possibility of an infiltration of the wall of the bowel with toxins and organisms taking place without any stasis being present must also be recognized. Such a condition would depend on the virulence of the organisms and the power of the bowel wall to resist an infiltration of the kind, or to neutralize it once it has taken place. It is well recognized that the mucous membrane of the intestine is the first line of defence against infection from the alimentary canal, and the intensity of the infection of the bowel wall depends on the relative virulence of the organism and power of resistance possessed by the intestinal mucosa.

The state of affairs found at operation in these cases is, in my experience, as follows:—There is generally more or less distension of the caecum and ascending colon, with prolapse of these organs. The level of the hepatic flexure is often lower than normal, and there may be a kink at this point.

Jackson's veil is also well marked. The appendix may be normal or chronically inflamed. But it must be recognized that all these abnormal conditions can be present without any pain at all in this region.

I will consider now in detail the various pathological conditions which are found associated with chronic appendicitis, in the hope that this review may help towards a more exact diagnosis of these cases, and so serve to diminish the number of patients who are only partially relieved or not relieved at all by an appendicectomy. It must be the experience of both physicians and surgeons that there are a great many such cases. The facts on which this paper is based are derived from some 20 cases, and though I would like this number to be greater, circumstances do not permit of a delay in publishing these results. Again, the time elapsing since operation is too short for me to be able to report on the ultimate result of the methods which have been adopted. These results will be reported in due course, and in the meantime I can only deal with the pathological conditions found and the means taken to relieve them.

The various abnormalities which occur together with a chronic appendicitis are:—

(1) Gastric and duodenal ulcer.
(2) Gall-stones.
(3) Stasis in the large intestines. This may be a general stasis in the caecum and ascending colon.
(4) Ptosis of the small and large intestine, or Glenard's disease in which the liver and kidneys also are involved in a general enteroptosis.
(5) Lane's iliac kink.
(6) Distension and ptosis of the caecum and ascending colon. This may or may not be associated with obstruction at the hepatic flexure.

Gastric and Duodenal Ulcer.

In every case of ulcer which I have seen recently I have carefully looked for stasis in the alimentary canal and appendicitis, and in all cases I have been able to demonstrate without any doubt whatever, one or both pathological conditions. Lane boldly states that ulceration is due to stasis. I have not sufficient evidence at my disposal to enter into a discussion as to the exact nature of the association, whether in the first place stasis or appendicitis is invariably found with ulceration, and whether the ulcer is due to the other pathological conditions, but I can confidently state that these lesions are found very frequently in the same abdomen, and further, that in order to obtain a cure of the patient, each of them must be treated adequately. It is significant in this connexion that operations designed to treat the ulcer only are often inadequate to produce a complete cure, symptoms of indigestion arising after the operation, with even the production of another ulcer. The more I think on this subject the more I am forced to the conclusion that gastric and duodenal ulcer is secondary to some other disease, and in many cases at least this disease is either stasis or appendicitis. This view is further supported by the fact that hæmatemesis is a common symptom in appendical dyspepsia, and surely this necessarily indicates some organic change in the stomach, the exact nature of which is not clear, but which is probably a potential pre-ulcerous condition. Be this as it may, I would urge that in addition to treating the ulcer the appendix and bowel should be carefully examined, and any pathological state of these organs appropriately dealt with. If this were done I am convinced that many more cases of this nature would be cured completely, and the percentage of cases of recurrence of symptoms several months after operation considerably reduced.

Gall Stones.

This disease also I regard as due to some pathological state elsewhere in the alimentary canal. Two very common causes are typhoid fever and chronic appendicitis. In all probability the manner in which it is produced is as follows:—Organisms, either the typhoid or colon bacilli find their way into the portal blood from the primary focus of infection, which is very frequently either a diseased bowel or appendix. These bacilli are eliminated in an attenuated form in the bile, and so find their way to the gall-bladder, where they set up a mild infection.

Moynihan removes the appendix as routine in every case of gall-stones, and we are forced to accept the teaching and follow the practice of one who had such a vast experience in this disease. Personally I have never seen a case of gall-stones in which the appendix was examined and found healthy, and I have on two occasions removed the appendix in patients whose gall-bladders had been previously removed without complete relief of symptoms. Appendicectomy in these two cases produced in one case complete and in the other considerable amelioration of symptoms.

Stasis in the Large Intestines.

I have seen a good many cases which present symptoms of indigestion not unlike those of appendical dyspepsia, and in which there is tenderness in the iliac fossa. The patients complain of a feeling of fulness and discomfort after meals, and troublesome eructations of gas, together with headache, malaise, etc. A complete examination by means of a bismuth meal and X-rays discloses the fact of stasis in the large intestines. An appendicectomy, an operation to which they are not infrequently subjected, brings about only partial improvement or none at all.

In other cases the stasis is confined to the caecum and ascending colon, the bismuth passing at a normal rate to the rectum after it has passed the hepatic flexure. The exact nature of the obstruction at the flexure varies; in some it is merely a kink which can be straightened out when the patient is recumbent, but which is quite manifest in the erect position, the transverse colon which is generally ptosed, and the ascending colon which is generally

distended and ptosed, lying side by side. The flexure is often at a lower level than normal, and it may be strung up to the liver and posterior abdominal wall by a well organized and definite membranous structure, which plays the part of a peritoneal ligament.

In some cases of kinks the internal longitudinal muscle band appears to be contracted, so that when released after having been straightened out, the flexure takes up an acutely kinked position.

Other causes of chronic obstruction that I have met with in this region are membranous bands connected with the right edge of the great omentum, and passing to the peritoneum on the outer side of the colon, and also adhesions to the gall-bladder.

Distension and Ptosis of the Caecum and Ascending Colon.

This condition may exist either with or without obstruction at the hepatic flexure. The distension is often considerable, the caecum becomes very mobile, and is situated in the pelvis or opposite the inner half of Poupart's ligament, and it can frequently be drawn right across the mid-line of the body to the left side. This condition is due to atony with consequent stagnation of fæces in the caecum, and necessarily predisposes to descent of the hepatic flexure, and possibly undue mobility of the right kidney.

Enteroptosis.

Very frequently coils of small intestine are found both by X-rays and at the operation to be situated in the pelvis. I am not satisfied that in any case in which this was found it was harmful. In three cases there was undue delay in the small intestine, but no organic kink was found at the operation, and the removal of a diseased appendix relieved the symptoms. Personally I am inclined to regard the delay as caused by a spasm of the ileo-caecal sphincter, due to the inflamed appendix and not caused by the kinking of the ileum except in those cases in which there is a definite organic obstruction.

The large intestine is often found in an abnormally low position, the hepatic flexure is placed at the level of the umbilicus, and the transverse colon in the pelvis; the splenic flexure is rarely in a too low position. Under the circumstances, undue delay of fæces in the colon is always present to a greater or less degree, and when the transverse colon is involved, the weight of this organ necessarily draws the stomach downwards. The involvement of the stomach in this way accounts for the gastric symptoms which are commonly met with in this class of case.

Ptosis of the liver and kidneys is often present. It is not my intention to discuss the ætiological relationship between moveable kidney and stasis in the colon, but I wish to point out that bacilluria is common in these conditions, and that it is frequently extremely difficult or even impossible to distinguish the pains caused by a moveable kidney from that produced by disease of the ascending colon. In some cases both factors are at work, and in these I would suggest that the diseased colon is the seat of absorption of the bacilli, that these organisms are excreted by the kidney producing a mild pyelitis, and that this infection of the pelvis is particularly liable to occur if the kidney be moveable.

Lane's Ileac Kink.

It is astonishing how frequently this condition is found if it is systematically looked for. It is my practice in all cases of operation for appendicitis to draw the terminal foot of the ileum out through the incision. It should be readily delivered, but in not a few cases it is found that this is impossible, and on closer examination fairly dense peritoneal strands are found binding the intestines down to the pelvic brim for an inch and a half or two inches. The condition has been frequently and fully described by Lane and many others, and there is to my mind no doubt whatever that it is liable to cause chronic ileac obstruction, and that it gives rise to symptoms of pain in the iliac region and also to symptoms of indigestion simulating closely those produced by a gastric or duodenal ulcer.

I now come to consider the treatment of these cases.

In all cases of chronic appendicitis, i.e., cases in which symptoms of indigestion or pain are constantly present with or without general symptoms, such as headache, malaise, etc., it is my practice if possible to make an examination of the whole of the alimentary canal by means of a bismuth meal and the X-rays. I would emphasize the importance of this examination, in order to obtain an accurate knowledge of the state of affairs which has to be remedied. An examination of the urine should also be made for the presence of the bacillus coli, and if necessary a cystoscopic examination.

Many patients can be very considerably relieved by drug treatment only, and I would recommend in suitable cases a trial course of aperients a month before an operation is performed. The diet should also be regulated, physical exercises given, and if there is visceroptosis, an abdominal belt is of great benefit. I have frequently seen considerable relief brought about by these means, the patients being enabled to pursue their daily occupation without any discomfort whatever. Care must be exercised by the patient for a indefinite period, or otherwise the symptoms may return. The relief afforded by these measures is often quite as great as that following an operation.

When operating on cases of this character, it is my invariable practice to employ an incision three inches long through the right rectus muscle, opposite the umbilicus. Through this incision the stomach, duodenum and gall bladder, as well as the whole of the ascending the colon, caecum and appendix, the transverse colon and ileum can be examined; an examination of the pelvis can be made, and in females this should never be omitted. I always make a routine examination in this way, and then proceed to deal appropriately with the various abnormalities present. If necessary, the incision can be enlarged either in an upward or downward direction if more room is required to attack diseased organs in either the upper or lower abdomen. In this

way an incision is obtained which, while affording complete access to the parts, is of small size and does not weaken the abdominal wall in the slightest degree.

I will now describe shortly what has been my practice in dealing with the various complicating conditions which may be found in association with chronic inflammation of the appendix.

Gastric and Duodenal Ulcer and Gall Stones.

I would emphasize the importance of not omitting to examine the appendix, and of removing it if necessary in these diseases. The appendicectomy can usually be performed through the incision made for the major operation. A Lane's kink should also be looked for and relieved, especially in ulcer, in the manner described below.

Visceroptosis.

I do not think I can throw much light on the treatment of this troublesome disease, and will merely mention the result of one case in which I operated. The patient was a woman aged 28, who complained of continuous indigestion, with frequent attacks of vomiting. She also suffered severely from headache, and was prostrated to such an extent that she had considerable difficulty in performing her housework. She was forced to remain in bed every three or four days, and she got about only with a great effort. An examination showed general visceroptosis and evidences of chronic appendicitis. I removed the appendix, and performed an ileo-sigmoidectomy after Lane's method. I have seen the patient several times since, and the improvement has been startling. She has gained considerably in weight and strength, she feels well and vigorous, has no indigestion, and performs her housework without difficulty. The results in this case indicate that some symptoms at least of visceroptosis are due to stasis, and that with a wise selection of cases, considerable benefit will follow the appropriate treatment of the condition.

Stasis.

I have treated four cases of colic stasis by ileo-sigmoidectomy, and have every reason to be satisfied with the results. In none of the patients were there any outward symptoms, and all improved considerably as a result of the operation. If the stasis occurs only in the caecum and ascending colon, various methods can be adopted. Bands of membranous adhesions may be divided, with the result that the gas in the ascending colon is seen to pass immediately onwards into the transverse. In other cases I have made an anastomosis between the ascending and transverse colon. These cases are too recent to justify any statement as to the results, but I may say that in some of them the improvement was definite, while in one there was complete cure for three months, followed by a partial relapse.

Distended Caecum.

If the caecum is unduly large and distended, it is my practice to plicate it by suturing the anterior and external muscular bands together, with interrupted Lambert sutures. This effectively reduces the size of the organ.

Lane's Kink of the Ileum.

A terminal kink can be readily remedied by dividing the peritoneal bands in a direction parallel to the gut, and liberating the intestine freely. The bare surface is then covered over by suturing the peritoneum in a direction at right angles to the intestine. This method serves well if the binding down is not extensive, but if it is the result is the formation of a puckering of the intestine, which, with subsequent contraction, may lead to the formation of another kink. To obviate this, I adopt the following procedure. The lower layer of peritoneum forming the mesentery just opposite the kink is divided by a V-shaped incision, and the peritoneum enclosed in the incision stripped up: this allows the kink to be relieved completely. The peritoneum is then sutured with interrupted cat-gut sutures in such a way that the resulting line of suture forms a Y. This produces complete a covering over of peritoneum of all the bare surface, and the terminal part of the ileum is perfectly free.

In conclusion, I would emphasize the importance of making a thorough examination in every case in which chronic appendicitis is suspected. This examination should include the giving of a bismuth meal, the taking of a radiogram, and an analysis of the urine. Further, the advisability of a short course of medicinal and hygienic treatment should be considered before an operation is undertaken, and finally access at time of operation should be obtained through a right rectus incision, and a thorough examination of the parts made on the operating table.

If this is systematically done I venture to hope that much will be added to our knowledge of the pathology of these organs, and that the percentage of patients cured will steadily rise.

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Reports of Cases.

A CASE OF SUDDEN DEMENTIA FROM MASSIVE CEREBRAL GLIOMA OF UNUSUAL NATURE.

By **John A. L. Wallace, M.D. (Edin.),**
Senior Assistant Medical Officer, H.I., Gladesville; and
Oliver Latham, M.B., M.Ch. (Syd.),
Pathologist to the New South Wales Lunacy Department.

Our excuses for bringing forward this case in detail are: (1) The fact that a man could continue his normal daily life to within a few weeks of his death with a tumour occupying nearly the whole of his left cerebrum, and (2) The opportunity it offers of presenting some of the literature on this subject, which is not clearly set forth in any one text-book on pathology.

A.S., male, æt. 28 years, single, a native of New South Wales, a labourer, was admitted to the Hospital for the Insane, Gladesville, on April 17, 1914.

No details could be obtained of the family history of the patient.

Personal History.—He had been living in a country boarding-house for the past three years, and it was stated by the landlady that the patient had been a bright, cheerful, industrious man until about fourteen days before his re-

moval to hospital. The first signs noted by her were that he became morose, silent and would not work, lay in bed all day, and became dirty in his habits. He then became demented, not understanding questions, and taking no interest in himself.

On admission to Gladesville he was restless. His habits were dirty, and he was very destructive. He was induced to take food with difficulty, and was in a condition of stupor. He did not answer when spoken to.

The physical condition was found to be as follows: His temperature was normal, the pulse-rate was 72, and the blood pressure 155 mm. His breath was offensive, and his tongue was thickly furred. His gums were spongy, and a recognizable pyorrhœa was present. He had a marked coarse tremor and a reeling gait. Romberg's sign was just elicited. The knee-jerks were active, and there was marked patellar clonus. The pupils tended to remain contracted.

The patient was in a distinctly typhoid condition. He became gradually worse, the mental symptoms progressed and he became physically weaker. On April 20 he was deeply comatose; his temperature was 102°. On the following morning it had dropped to 100°. The pulse-rate was 112, and the blood pressure 115 mm. A blood film showed marked polymorpho-nuclear leucocytosis and an increase of blood platelets. The hæmoglobin value was 90 per cent.

A small quantity of urine was obtained with difficulty. The urine was brown, opalescent, highly acid, and contained a trace of albumin; there was no sugar; the diazo reaction was negative. Microscopically, no cells or casts were seen. There were abundant crystals of calcium oxalate.

On lumber puncture the cerebro-spinal fluid escaped under a slightly increased pressure. There was no lymphocytosis and Ross-Jones' reaction was negative; while both the fluid and the blood serum gave a negative Wassermann reaction.

There was no vomiting, but swallowing was very difficult. Patient died on May 1, 1914, approximately four weeks after the onset of acute symptoms.

The post-mortem examination disclosed a new growth in the frontal lobe of the left cerebral hemisssphere. All the other organs were apparently normal. There was some accumulation of fæcal matter in the upper bowel, which might have accounted for the oxaluria.

The brain was preserved in 10 per cent. formalin, and on examining the gross horizontal sections after hardening, the left hemisphere seemed much larger than the right, but there was no distortion. Several neighbouring portions of the white matter appeared somewhat different in texture, giving the appearance of additional growths, while a similar small spot was noted in the mid-brain. All these areas were subsequently proved to be tumours substance, and, with the exception of the latter, to be in direct continuity with one another. Altogether, the growth was nearly 1½ inches deep, and extended from the grey matter of the frontal lobe to within 1½ inches of the occipital pole, and nearly to the mid line and to the grey matter of the ascending frontal convolution. It was only in the last named situation that normal brain tissue free of tumour cells was found.

The centre of the main tumour mass was found to be composed of a dense collection of fibres and of large and medium sized cells, some round and some glia like, some multinucleated and some with only one nucleus. The field here was obscured by many small hæmorrhages, and had recently become infected, as evidenced by innumerable polymorpho-nuclear cells. A little further out, and in all the other sections cut, these complications were absent, and all the tumour cells were seen to possess numerous processes, long and short, thick and thin, while in between the cells coursed countless fibres, which could not be traced to any cells and which might have been an intercellular fibrillar network. The blood vessels were numerous, and the cells seemed to group themselves round them and form their walls in the case of the smaller capillaries, but closer observation nearly always showed the normal cell-wall. In the case of the larger vessels, the adventitial sheath derived from the pia-arachnoid was seen. In the section near the ascending frontal convolution the tumour cells gradually fell away to the outer side, and about the third layer of the cortex, normal brain tissue without tumour cells or fibres was observed. It should be pointed out in this place that it was almost impossible to determine whether all these giant glia cells at the edge were in truth tumour cells or whether they were hypertrophied neuroglia cells of the part. Some of the glia cells in this situation were seen to possess double nuclei, and one may presume therefore that some at least were true tumour cells. A section stained by iron alum hæmatoxylin showed the myelinated nerve fibres very distinctly, and as these proceeded into the places where the tumour cells were densely packed, the cells appeared as if they were pushing their way between the fibres without disturbing them. It may be stated that even in the densest part of growths of this nature where the myelin sheath cannot be seen, the axis-cylinders can still be made out by Bielchowski's method, just as in disseminated sclerosis. This might explain this patient's retention of cerebral function for so long a period. Another point of interest is the apparent absence of any round cell infiltration or Gitterzellen in the adventitial coats of the blood vessels, such as would have existed were much myelin being destroyed. The localized infection previously alluded to was rather too recent to produce this condition, but presumably hastened the end.

The diagnosis of "giant-celled glioma" was based on the following points:—

(1) The cells are mostly of the multinucleated giant neuroglia cell type.
(2) They tend to group themselves round the blood vessels without forming their walls.
(3) They have innumerable and varied "processes."
(4) While some of the cells may be hypertrophying neuroglial cells of the part, yet the evidence of proliferation rather points to the majority being tumour cells.
(5) The intercellular fine fibres are numerous.
(6) The fibrillar element decreases pari passu with the decrease in the number of the tumour cells.
(7) The tumour does not by itself compress or destroy, but its elements push their way between the nerve elements and increase the bulk of the hemisphere without much alteration of shape or naked eye appearance.
(8) While the tumour at first appeared to be multiple, further microscopical evidence proved the stream of cells to be continuous in the cerebral lesions, while the mid brain growth is not far removed from parts of the main tumour, and these "outlying" growths are a recognized phenomena of cerebral gliomata.

It seems that the term glio-sarcoma is rather a misnomer, while the term "malignant" seems quite out of place, since microscopically this tumour is composed of highly organized cells of epiblastic origin, and as we have seen it does not destroy or apparently form any injurious toxin, yet one might sympathize with a surgeon's feelings who happened to see an autopsy on such a case after an operation for diagnosis or relief.

We have to express our indebtedness to Dr. Froude Flashman for criticisms and help in translating the articles which are published in foreign languages.

DESCRIPTION OF SPECIAL PLATES.

PLATE I.

Fig. 1.—Drawing of horizontal section of the brain. The main tumour (which was of a red colour) darkly shaded; the lightly shaded part represents areas certainly invaded. The thick lines denote the increase in the tumour cells from without inwards.

Fig. 2.—Shows position of small area affected in mid brain.

Fig. 3.—Shows the section under high power at B. The bundles of myelin fibres coming in from the cortex are not much disturbed by the tumour cells. Iron alum haematoxylin-van Gieson preparation. × 400.

PLATE II.

Fig. 1.—To show the nuclei and the irregular size of the cells, and relation to the blood vessels. Some cells were over 60μ in size. (Formalin, Weigert's iron-haematoxylin-picro-azofuchsin G. preparation.)

Fig. 2.—The shape of the cells well seen, together with processes; also the inter-cellular fibrils faintly stained. (Formalin, acid haematin and overstained in picro-azofuchsin G.)

Fig. 3.—Stained by Ford Robertson's iodine-methyl-violet method to bring out the neuroglia fibres and network. By this method the bodies of nerve cells, tumour cells and normal neuroglia cells are scarcely stained, but the nuclei as seen in the plate are well differentiated. However, it brings out such hypertrophied neuroglia cells as are found in general paralysis, and irritative conditions. Such a cell is seen at the top of this figure.

The microscopical drawings have been carried out with a camera lucida, eye-piece 2, objective 1-6th inch, Zeiss system.

Coats (1) states that gliomata are tumours with the structure of the connective tissue of the central nervous system—the neuroglia—and are difficult to separate macroscopically from brain tissue. Ordinarily speaking, it is difficult to tell what is really nerve structure and what supporting tissue; but when the floor of the fourth ventricle is examined it is seen that ganglion cells and nerve fibres fall away, and at the surface what appears to be a purely connective tissue, a finely reticulated network of fibres and round or slightly elongated cells, is met with. If not specially prepared, the tissue looks granular or mucoid, and the fibres are not well seen.

Where gliomata invade, the varying shades of nerve structure becomes lost. Gliomata are usually soft, but may be dense. Microscopically, they resemble neuroglial tissue, but the cells are more abundant. There is a well developed network of coarse or fine fibres, and cells with oval nuclei. The cells vary in size, and hæmorrhages often occur, or fatty or caseating degenerations. They are slow in growth and non-malignant; sometimes they assume a sarcomatous character, and malignancy is developed.

At times there is an excessive development of vessels, the small round cells arranged in relation to them are often embedded in a finely granular homogenous or fibrillated substance, varying therefore from myxomatous to densely fibrous consistency, while the cellular varieties more especially assume the characteristics of a sarcoma.

Woodhead (2) says "The tumour consists of neuroglial cells, whose nuclei are distinctly seen grouped round the small blood vessels, the cells possessing branching processes, and these conditions are seen in old scleroses of nervous tissue.

Williamson (3) notes that many of the cells of a gliomatous tumour resemble neuroglia cells; others are multinucleated. Sometimes the tumour contains large cells somewhat resembling ganglion cells. Gliomata do not invade adjacent structures (pia mater) and do not form metastases.

Thoma (4) notes also that gliomata consist of neuroglia and blood vessels; the latter have a coat of mesoblast (pia arachnoid). If the cells are closely packed the processes become invisible. He describes five forms—hard, soft, telangiectiform, cystoidic, and a neuroglioma ganglio-cellular.

Adami & McCrae (5) distinguish between gliosis and glioma. They believe that processes from the cells ultimately become separated off. Gliomata appear to be metastatic, but recent researches show that the other masses are really parts of one focus. Gliomata have their cells bearing some relation to the blood vessels (gliomatosis).

When the cells are abundant and without processes, it is difficult to distinguish the tumour from a round celled sarcoma of mesoblastic origin, but if the term "sarcoma" is used in its purely histological significance, no hesitation need be felt in using the term "gliosarcoma."

Adami (6) quotes Weigert as holding that the fibres of the nervous system are not processes of the neuroglia cells, but are products thrown off from them. Taylor and Pusey, on the other hand, believe that the processes remain attached as shown by Mallory's stain, and Bonome too says that these connexions are more evident in pathological conditions.

Adami also notes that tumours composed of glia cells are only found in the central nervous system, cranial nerves (rarely), and in the retina. The increased growth of neuroglial elements found in association with syringomyelia must be considered a local hypertrophy of pre-existing glia cells in the affected part, i.e., a gliomatosis.

Soft varieties of gliomata are commonly found in the cerebral hemispheres and corpus callosum, and may be of great extent, while the firm kind often protrude into the fourth ventricle, and may easily be shelled out. Neither form metastases.

The retinal varieties are considered to be malignant, and are made up of closely packed cells without evident processes, and are arranged round the blood vessels. At times, however, they contain rosette shaped arrangements of cells round cavities resembling an alveolar or adenomatous structure (Flexner and Winterstein). Gray and Hartel, using the silver nitrate method, have shown that these cells have well-formed processes, some of which point towards the lumen, and thus look like the cells of the rods and cones (Flexner), but are simply neuroglia cells. Elsewhere we shall refer to these "hollow bullets" as associated with the primative cavities of the brain, and central canal of the spinal cord.

Beattie & Dickson (7) state that gliomata are infiltrating tumours with rounded or irregular cells, with or without branching processes, and are embedded in a granular homogenous or finely fibrillated matrix, and exhibiting all degrees of malignancy.

E. Lugaro (8) says that neuroglia cells normally appear as small nucleated bodies, with scarcely visible cytoplasm, and but few processes. In old age there is no increase in the number of cells, but the cytoplasm swells, and the processes become longer and more evident.

In general paralysis, the cells proliferate and hypertrophy enormously, sending out processes both thick and thin, long and short, which may attach themselves to the pia and blood vessels. Weigert maintains that when there is a loss of parenchymatous tissue such as nerve fibres, neuroglia fibres proliferate and compensatorily fill in the gap, running parallel to the lost elements. It is maintained, too, that the neuroglia cells can regain their power to form higher nerve elements; viz., ganglion cells, but this is debatable. It is also suggested that "Gitterzellen" found in the regions of degenerating myelin are altered neuroglia cells, which have power of amœboid movement. Finally it is suggested that the giant neuroglia cells of general paralysis of the insane can protrude their processes into the substance of damaged nerve cells and destroy them.

Vascular changes may precede the neuroglial overgrowth.

The periependimal glia can increase in various pathological conditions, such as tabes dorsalis, meningitis, hydatids and epilepsy and also in old age. In these cases there are no special nuclei, but the long fibres go inwards at right angles to the surface. Later on they run in all directions, and invade all parts of the brain. In acute myelitis and encephalitis one sees the severest changes. Here are found the granular cells, giant neuroglia cells and Friedmann's cells all exerting a phagocytic activity.

In chronic conditions where repair is going on, these neuroglia cells lead to the building of an atypical sclerosis, since the invading elements partly become destroyed, and partly by the throwing off of an intercellular substance, take the place of the destroyed nerve elements.

Around areas of hæmorrhages and softenings one gets an active glial increase, called a "brain scar," and if very extensive, part of the glia may die, and thus a hole is formed, which is filled with fluid and surrounded by scar tissue, the surface glia of which may resemble epithelium.

In the embryonic brain these pathological conditions may lead to great neuroglial overgrowth, as in "gyral atrophy" and "microgyria," and, according to Bourneville, in hypertrophic brain sclerosis the condition is a mass increase, the unrestrained glia permeating the brain tissue and producing a pseudo-hypertrophy.

An important gliosis occurs in the sclerosis of syringomyelia. This is more or less extensive gliosis in the neighbourhood of the central canal of the spinal cord, which may have a cavity lined with ependimal cells, and it is not certain whether the cavity is a development or accidential burrowing in the glia. It is also uncertain how far the condition may be due to toxic irritation, hæmorrhages, and inherited or acquired dilations of the central canal. A glial increase may also occur round a hydro-myelia, and some authors are of opinion that no sharp distinction can be drawn between hydro- and syringo-myelia. Again, the cavities may possess a complete ependimal lining or only modified glial tissue.

In regard to the causes of different forms of neuroglial hypertrophy, some factors can be determined with certainty, while others can only be conjectured. The etiology of the gliomata is less definite; the tumours may be composed of all or any of the forms of neuroglial cells and intercellular substances. It is, therefore, impossible to recognize one histological picture which could be regarded as typical of all gliomata.

Different gliomata possess different kinds of cells; there may or may not be an intercellular substance, and some have the typical star-shaped cells with processes—the neuroglia

cell in Golgi's preparations. In retinal gliomata gland tubes, or rather hollow bullet shaped masses of cells (rosettes) are noted. Later on the tumour loses its embryonic structure, the cells become true glia cells and fibres can be found. Storck notes a case in which these "tubes" were seen in the spinal cord and the parietal lobe of the brain. He states that monster glial cells are always present at the edges of a glioma. These cells stain in a special manner; they have been mistaken for ganglion cells.

No doubt at the outer edges of tumours the glia cells normally present can hypertrophy and proliferate, and it is therefore difficult to determine in a glioma where the tumour cells invade, and where the local cells have become specially visible, as in general paralysis of the insane. In the same tumour different kinds of glia cells may be seen, but it is quite wrong to designate the growth a glio-sarcoma because some parts exhibit cells without any fibres or inter-cellular substance. This name should be reserved for those rare cases where a glioma has been complicated by the invasion of a sarcoma or perithelioma derived from the mesoblastic adventitia.

Lugaro quotes Starr as holding that a glial tumour may be present in the form of a great increase of glial tissue scattered through a large segment of the brain. This increase of glial tissue does not, however, produce any obvious increase in the volume of the brain which could be detected at an operation.

Gowers maintains that all brain hypertrophies are actually gliomatoses. Starr considers that gliomata are either (1) cortical, or (2) in the centrum ovale, while Strœbe recognizes (1) a cortical, (2) a ventricular, and (3) a intermediate or centrum ovale form. Thus it is only the intermediate which have the characters of a new growth, and the brain stem condition is called a "gliomatosis."

L. Bruns (9) expresses the following opinion. The sarcomata have sharply defined boundaries, so that the tumour can be lifted out of its fluid bed. Gliomata have no such sharp edges. Strœbe has noted mitotic figures in the advancing margin of gliomata, which is regarded as evidence of expansive growth. Again, the glial cells do not destroy brain tissue, but push it aside, so that perfect nerve cells and myelin sheaths, or at least axis cylinders, are found in old glial tissue. This fact may explain the recorded cases in which new formation of ganglion cells in some gliomata has been noted. It also explains why a large cerebral glioma may co-exist with a normal cerebral function.

The sarcomata and gliomata make up about 64 per cent. of all brain tumours. Strœbe has shown that glioma cells come from the mother or ependimal cells. He also noted the "hollow bullets," and considered them to be cut off portions of the neural canal.

Some gliomata are prone to hæmorrhage, especially vascular ones, and Gowers maintains that apoplexies with optic neuritis are probably gliomatous.

In the last place, the following pictures of gliomata may be distinguished:—

(a) Cells rich, fibres poor.
(b) Cells poor, fibres rich.
(c) Small celled.
(d) Large celled.
(e) Star-shaped celled.
(f) Long celled.
(g) Ganglion-shaped celled.
(h) Ciliated forms of cells.
(i) Giant celled.

Gliomata infiltrate, sarcomata compress, and carcinomata destroy.

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A CASE OF SPRUE.

By **C. E. Williams, M.D., B.S.,**
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H. J., aged 56, consulted me on January 1, 1914, on account of diarrhœa, loss of weight, and general weakness.

Previous history: He had always been a strong, vigorous, athletic man, used to an open-air life. He was accustomed to take a fair amount of alcohol. He had not suffered from any illnesses in the past. The present illness started indefinitely with attacks of diarrhœa about 12 months previously. The attacks had become more frequent and more severe as time went on. They were worse in the forenoon. He had lost weight and strength rapidly during the past three months. He has had attacks of soreness of the mouth and tongue from time to time. In health his weight was nearly 12 stone; it had fallen during his illness to 8 stone 9 lbs.

Present condition: He is a well-built man; wasted, anæmic, with earthy lustreless skin. The tongue is pale, and somewhat flabby, and denuded of epithelium round the edges. The appetite is good, and there is no vomiting. The bowels move frequently, up to six or eight times a day; the motions are more frequent in the forenoon. On some days the patient only had two actions. The stools are large, pale yellow, mixed with gas, and offensive. He passes a considerable quantity of flatus. The abdomen is easily palpated, the abdominal muscles being non-resistent and toneless. Outlines of coils of intestine distended with gas are visible. Though naturally high coloured, he is now very anæmic, and the skins is sallow, earthy and harsh. His eyes are sunken, and cheek bones prominent. He becomes tired on the slightest exertion, feels languid and without energy, and looks very ill. No abnormal physical sign was discovered at the examination of the other organs. He was admitted to my private hospital a week later. Meanwhile he kept on a strict milk diet, and gained a little weight.

The treatment consisted of rest in bed, then lying on the verandah for six weeks, with milk and fruit juice as diet. The only medicine given was castor oil and a few drops of laudanum at the outset, and subsequently an occasional laxative. From time to time during the first fortnight, 3 minims of oil of cinnamon in gelatine capsules were given as an intestinal antiseptic and carminative. As a rule I give no medicine in these cases, though I think the oleum cinnamoni is useful. I use it in typhoid fever, and never have troublesome distension. When given in a mixture it is very hot, and in large doses (8 to 10 minims) upsets the stomach more easily than when given in gelatine. I have them prepared in doses of three, five and ten minims.

The essential points in treatment are the rest and diet. The patient was ordered three pints of milk a day, to be taken at intervals during the 24 hours, as in typhoid fever. He was allowed to suck the juice of pears, grapes, oranges, mangoes. He ate at least a dozen mangoes a day, the fresh stringless variety, a different fruit to the mango usually seen in Brisbane. On the fourth day he took five pints of milk, and at the end of a week he took and digested seven pints of milk a day. He was kept on this diet (seven to eight pints of milk, and fruit juice ad lib.) for six weeks. His stools dropped in frequency to one a day after the change of diet, but they remained soft, drab coloured, and accompanied by flatus for a week. It was not till three weeks had passed that they became formed. They were still pale at that time. He was weighed each week; a regular and rapid increase was recorded. His general appearance was altered for the better with the improvement of weight and subsidence of symptoms.

His weight table speaks for itself:—

On admission	Jan. 8..	8st. 12lbs.
	Jan. 16..	9st. 3lbs.
	Jan. 23..	9st. 11lbs.
	Jan. 30..	10st. ½lb.
	Feb. 6..	10st. 6½lbs.

(Read before the Queensland Branch, British Medical Association, on October 2, 1914.)

Each week subsequently he gained, though less rapidly, as he approached his normal weight.

March 6..	10st.	11½lbs.
March 20..	11st.	3lbs.
March 28..	11st.	4½lbs.
April 4..	11st.	5lbs.

After six weeks on milk and fruit, small additions were gradually made to his diet, custard, baked apple, beef tea with bread crumb, soft milk pudding, etc., being allowed as convalescence progressed. On March 19 he was taking rice pudding, thin bread and butter, and soft boiled egg. On March 22 he had chicken and potatoes. The diet gradually was increased up to the time of his discharge on April 4, when he was taking a fairly liberal, easily digested diet. After six weeks in bed and on the verandah he was allowed gradually increasing walking exercise.

Comments on Sprue.

When asked to read a paper before a meeting of the Branch I chose this case of sprue, which had been lately under my care, because it represents the usual treatment and management of a case, and the usual results of the same. It may not be of general interest, being a tropical disease, but my experience teaches me that sprue is not always recognized in the south, where patients travel from Queensland to the other States. It is a disease that needs careful supervision and judgement in handling, and I know of no other disease when properly handled which shows such rapid and striking results. Patients who have been invalids for months and years, and appear to be at death's door, are quickly restored to health and strength.

Experience has taught me never to undertake the treatment of a case of sprue except in a hospital, where the treatment will be faithfully carried out, or in a private house, only with the help of a trained nurse who has full charge of the patient. This is necessary too, as the return to normal diet after the milk course, needs much care and experiment, and varies in different patients. Any article of diet that is tried must be stopped at once if found to disagree, in an individual case. It is impossible to write a diet beforehand for a patient to follow. Even if the patient obeys written instructions as to diet without supervision, disaster is likely to follow. It is surprising, but true none the less, that many patients expect a bottle of medicine to cure a chronic complaint of many months standing. They will take a mixture religiously every four hours, but will not carry out instructions as to diet and rest. They may take milk as ordered, but it is my experience that they will not refrain from taking other articles of diet not allowed. When they find that they do not improve, they attribute it to the medicine being no good, and will try another doctor with a similar result.

This is one reason, as well as the little good to be gained from it, why I do not give medicine; I impress on them that they can get well by attention to their method of living, that medicine without diet is useless, and with proper diet is unnecessary.

Even when in hospital it is not uncommon after two or three weeks of milk treatment, the appetite being voracious, the diarrhœa gone, and constipation needing a laxative, for a patient thinking he is cured, to discharge himself, and abuse the hospital, saying he was starved, although his weight had shown a substantial increase each week.

Insist therefore on the patient going into hospital, and warn him that he will have nothing but milk and fruit juice for six weeks at least, that if he be willing to undergo the treatment he will be cured, if he does not he will die as surely as if he has cancer, though it might take a little longer.

It is not possible as a rule to get so quickly on to sufficient milk as in the case quoted; the maximum capacity for milk in some, too, will be found to be less than seven or eight pints. They will gain weight on less, with rest.

I generally start with two and a half pints per day. This quantity may be beyond the capacity of the patient, and I peptonize it. I then continue on peptonized milk till five pints are taken. Plain milk is then gradually substituted for the peptonized milk, till five pints of milk are taken. Weight may be lost, or at least none gained for the first week or two. Gain may be slow at the start, but each pound gained means increased strength and prospects of more rapid gain in weight in the future.

It is surprizing how the patients can take fruit juice, and even fruit itself. Strawberries and mangoes are well tolerated, even in large quantities. I have given bananas early in these cases with good results—a thing I would hesitate to do in ordinary diarrhœa.

I am in no hurry to increase the diet beyond milk and fruit, provided that there be a regular gain in weight, and the patient does not complain.

Care is necessary in resuming ordinary diet, after progress has been made on milk. Always give one additional article at a time at first, so that if there be indigestion or return of symptoms, the paticular article to blame will be noted and omitted.

Custard, beef juice, certain patented foods, baked apple, soft milk pudding, thin bread and butter, raw egg in milk, lightly boiled egg, pounded chicken, a raw oyster or two, brains and so on may be tried. Small quantities are given at first, and the amount is gradually increased, the milk being continued meanwhile.

Finally, when the patient is on a liberal diet, omit the articles found to disagree, especially the usually recognized indigestible articles of diet, e.g., pastry, pork, pickles, meat cooked a second time, etc.

In case of a relapse of symptoms during the return to solid diet, I give castor-oil and go back to milk for a few days.

What is the fate of a patient who has had a bad attack of sprue? Probably it would be better for a convalescent always to leave the tropics and his surroundings, but that is not always practicable. Provided they are careful in regard to diet, they may go on for an indefinite time without return of symptoms. One of the worst cases I have seen was a patient who came to me after treatment elsewhere, and was cured when I insisted on hospital treatment, and this advice was accepted. She has since gone through childbirth, though forty years of age, and is still keeping in good health.

In some cases relapses occur, but the patients recover quickly on suitable treatment, if applied without delay. One case I recall, a man who came into hospital a wreck, left after a few weeks, having gained three stones, and looking a perfectly strong, healthy man. He returned a few months later as bad as ever. He had been prospecting, roughing it on beef and damper, "as he could not get anything else," as he put it, though warned of the necessity of being careful. Such cases are impossible.

The pathology of sprue has yet to be written. The disease in this district seems to originate chiefly in two or three centres, and from these the majority of cases seem to come. It is fairly prevalent, though not so frequent as in places further north. The sugar farmers live a similar life to farmers in other districts south. Their water supply is from tanks (rain water), underground wells, and occasionally natural water-courses. In the municipality of Mackay, water is pumped from a spear bore to an elevated tank, and thence reticulated through the town. There is no possibility of its infection.

I cannot call to mind a case of sprue that has occurred within the municipality.

The disease seems to me to be due to some alteration in the intestinal flora, either in regard to relative quantities of the bacteria or to their activity, or more probably to the introduction of some parasite from outside, possibly through the water.

There is said to be a catarrh of the mucous membrane in the early stages, with the secretion of much mucus; later there is a denudation of epithelium and atrophy of glandular and other structures. Certainly there is starvation, for though the appetite is great, the food goes in at one end of the alimentary tube as good, wholesome food, and comes out of the other as a stinking, gaseous mess, apparently more in quantity than what enters, and the patient shows progressive loss of weight. Digestion and assimilation do not take place.

There is also toxæmia from absorption of intestinal products of fermentation, leading to anæmia and pigmentation, comparable to what obtains in Lane's cess-pool in intestinal stasis.

Medical Journal of Australia.

SATURDAY, NOVEMBER 28, 1914.

Tetanus.

According to a report published in the "Times," tetanus has broken out among the troops in the Franco-Belgian theatre of the war, and is providing a formidable problem for the Army Medical staff. In spite of much research, the position to-day in regard to the therapeutic measures against this disease cannot be regarded as satisfactory. On the other hand, the prophylaxis is far more important in the field of battle, and in this regard we are by no means helpless. Every text-book on infective diseases contains an account of the pathology of tetanus, but, in spite of this, it may be of use to review the salient facts connected with the etiology of the disease. In 1884, Nicolaier discovered a rodlet measuring about 4 micro-millimetres in length, and provided with a rounded body at one extremity, giving the bacterium the appearance of a drumstick. One year previous to this, Carle and Rattone had shown that the disease could be communicated from man to rabbits and mice. Kitasato showed that pure cultures of these drum-stick bacilli produced typical tetanus in laboratory animals, and made the important discovery that the bacilli could be recovered from earth and dung. The bacilli are as nearly anærobic as any in existence, and are not very resistent. The spore, that is, the rounded end of the bacillus, survives after the rodlet has died, and is capable of remaining latent for some time in dust, earth, rust, dung and wooden splinters. The question may be thrown up why tetanus is a comparatively rare disease in ordinary life, since the bacilli are widely spread in the most common of all material, and a very large proportion of minor wounds come in contact with this form of material. A bacilliary spore is necessarily a potential cause of an infection, but, as is undoubtedly the case with many disease-producing germs, the spores of tetanus bacilli can only gain a foothold under favourable circumstances. Growth does not take place in street dirt, garden earth or stable manure, because the conditions are too ærobic. The amount of infecting material is therefore, as a rule, very small. The normal healthy body fluids appear to have sufficient bactericidal power to deal with this minute quantity of infective material, and, in addition, the leucocytic activity forms in this instance as a fairly efficient protector. On the other hand, a man depleted of blood in consequence of a serious wound, lying for a long period in contact with matter containing spores, and weakened by nervous strain, exposure to cold and wet and perhaps short rations, will not offer the same resistance to the growth of bacilli from isolated spores, and will, in a fairly large proportion of cases, become clinically infected.

In 1890, von Behring and Kitasato proved on mice that the serum of animals immunized with tetanus toxin afforded a high degree of protection against infection, and, further, that, if applied soon after the onset of symptoms, the anti-toxin in the serum acted curatively, but only when large quantities were employed. This discovery was greeted with much enthusiasm at first, but it soon became apparent that the therapeutic value of tetanus antitoxin was small. The explanation is quite simple. Tetanus bacilli produce a toxin which possesses a very marked affinity for nervous tissue. The toxin is produced as soon as a good growth of bacilli takes place. The time intervening between the infection and the appearance of symptoms, that is, the incubation period, is occupied by the struggle between the infecting agents and the body and the ultimate growth of successive generations of bacilli, with the production of increasing quantities of toxin. By the time that opisthotonos is marked, the nerve-cells have, as a rule, combined with a fatal dose of toxin. In those cases in which recovery occurs spontaneously, it is supposed that the production of toxin is slow, and that at no time is this quantity a full lethal dose. Anti-toxin is quite incapable of detaching toxin from the nerve-cell, although it can deflect it as long as the toxin is free, and thus prevent a fatal poisoning from taking place. The possibility that a sub-lethal dose is anchored to the nerve-cells and that, during the course of the illness, sufficient additional toxin might be produced to convert the total into a lethal dose is always present. In mice, it appears that a large quantity of anti-toxin applied before the full lethal

dose is anchored is capable of saving the life of the animal. Whether this takes place in man is not definitely known, but the possibility is full justification for the injection of considerable quantities of anti-toxic serum early in the disease. In view of the almost negative results obtained, various modifications of the method were introduced. It was thought that since the toxic effect of the toxin was due to its action on the higher vital centres, the most rapid and the most effective application would be by direct injection into the brain. Roux and Borrel therefore introduced the so-called intracerebral injection method, but it was soon discovered that this procedure was highly dangerous, and that its therapeutic value was doubtful or nil. Blumenthal and Jacob, and at the same time, Sicard, proposed to apply the anti-toxin into the dural canal, in the hope that its admixture with the cerebrospinal fluid would enable it to act directly on the toxin on its way to the vital centres. A number of authors have recommended this method, as offering the best chances, but it is certainly only advisable in early cases, and, in addition to less desperate methods of application. At least 100 anti-toxic units should be injected as early as possible, and the same dose repeated after 48 hours. Meyer and Ransom recommended the injection of anti-toxin into the nerve trunk of the limb bearing the wound through which the infection gained an entrance. This method was based on the idea that the toxin travels up the nerve trunks to the central nervous system. It is doubtful whether this method yielded better results than simple subcutaneous injections. In brief, it may be stated that if the incubation period exceeds 10 days, the prognosis without specific treatment is good, but for safety sake, a subcutaneous injection of 100 units should be given as early as possible. When the incubation period is 4 or 5 days, it is improbable that anything will do good.

On the other hand, on the field of battle, the injection of 20 anti-toxic units in every case of severe wound, and especially when the wounded man has lost much blood and has lain long on the earth, should be given as a prophylactic measure. This procedure has been found to be reliable, and should be practised freely. It has achieved a striking reduction in the incidence of tetanus.

HOSPITAL MANAGEMENT.

There are two ways of arriving at perfection. We can sharpen our wits and, by the exercise of ingenuity, plan a good scheme and improve on it until our ideals are achieved, or we can allow bad methods and incompetent persons to bring our institutions into a scandalous condition, and then introduce reforms based on the reverse of everything that obtained before. The first method depends on active progress; the second is an example of paying a high price for experience gained. In its application to hospital administration and management, the second method is apparently common, notwithstanding the fact that in several parts of the world something approaching perfection has been attained. The difficulty, in-so-far as it affects Australian institutions, lies in the belief that a hospital can be well managed by a body of untrained laymen and in the want of a clear definition of the functions of a hospital.

Within the past few months, the public have been nauseated by the publication of pages of matter in the daily newspapers concerning what has been termed the Children's Hospital trouble in Perth. The scapegoat, as is usual, was the medical man, while the root of the trouble lay in an entire lack of definite and good administration and management. On October 10, 1914, we ventured to express the opinion that the petty trouble which had disturbed the efficient working of the Children's Hospital for a considerable period of time was a thing of the past, and that the committee would act fairly and wisely in the future. We placed too much reliance on the good sense of a committee of laymen and laywomen. Since the primary understanding had been arrived at and a fresh start had been made, the nurses of the hospital appear to have adopted a strange policy of recording complaints of almost every action of Dr. Pearson, the Chief Resident Medical Officer. The General Committee of the Hospital met on November 5, 1914, to consider these complaints, and, on analysis, it was found that nothing had transpired to warrant the slightest complaint, and that the nurses had been subjecting Dr.

PLATES ILLUSTRATING DRS. WALLACE AND LATHAM'S PAPER.

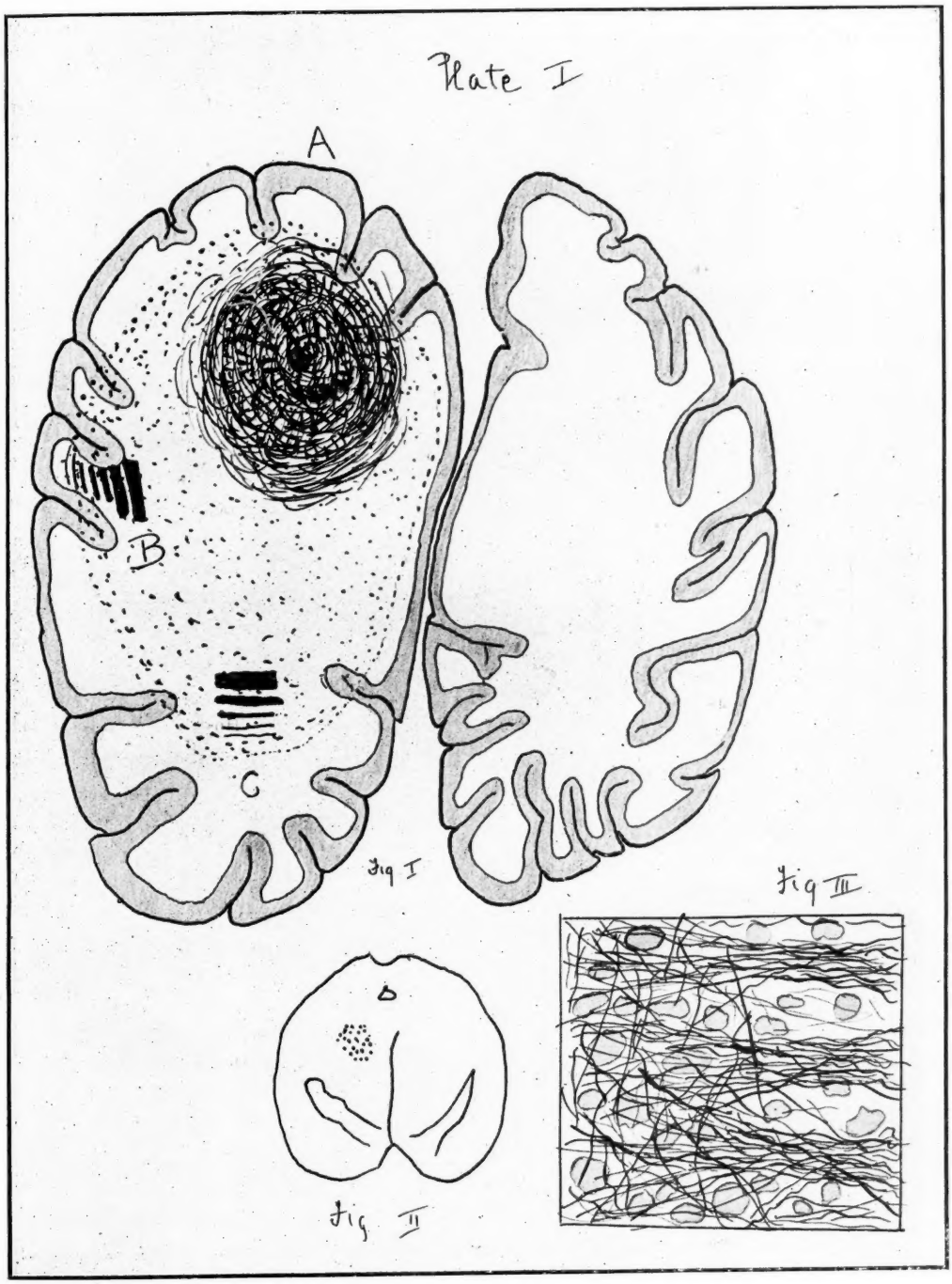


PLATE I.

PLATES ILLUSTRATING DRS. WALLACE AND LATHAM'S PAPER.

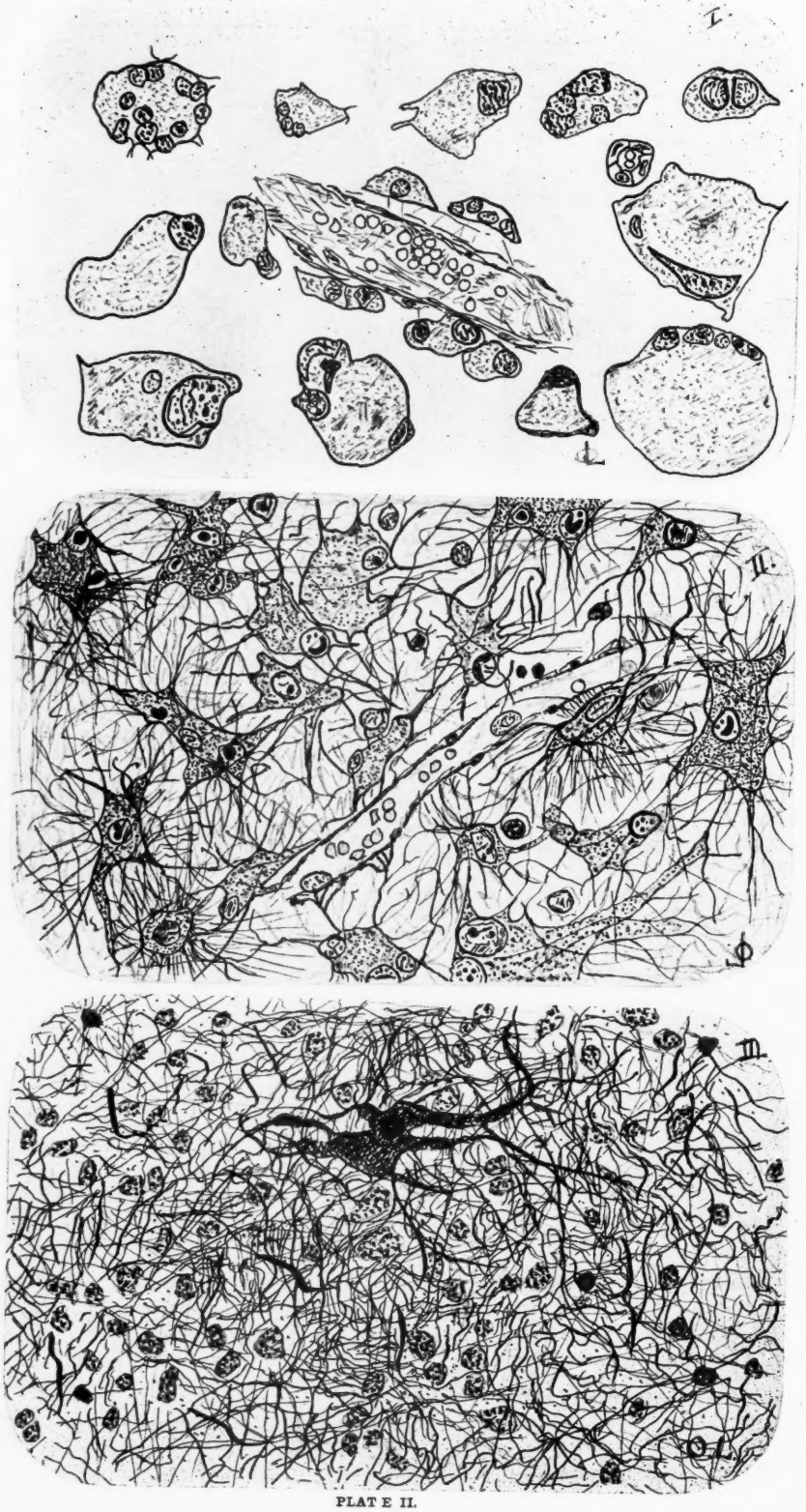
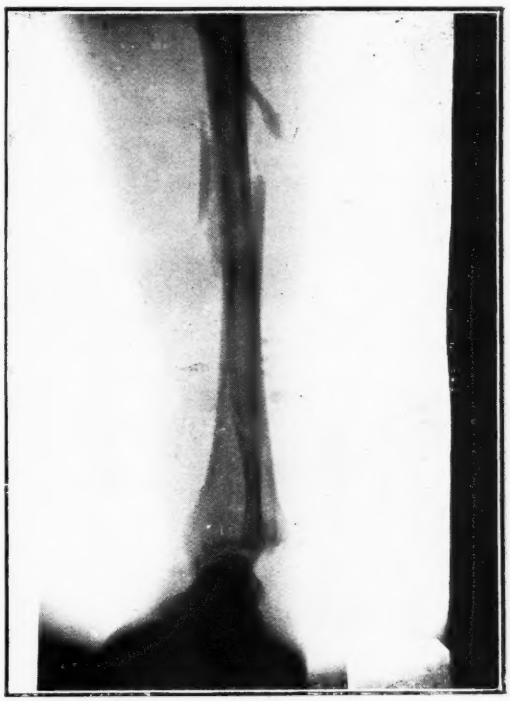


PLATE II.

PLATE ILLUSTRATING DR. HERSHEL HARRIS'S PAPER.

Extensive comminuted fracture of upper ends of Ulna and Radius, due to shrapnel, which had carried away parts of the muscle



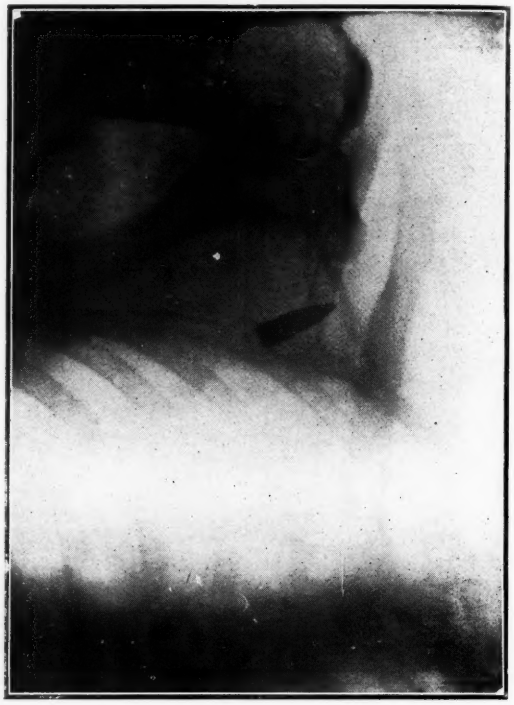
Comminuted splintered fracture of Radius following the passage of a fragment of shrapnel shell.

Comminuted fracture of 2nd phalanx of finger, following entrance of fragments of shrapnel shell.

Pellets of shrapnel shell about shoulder

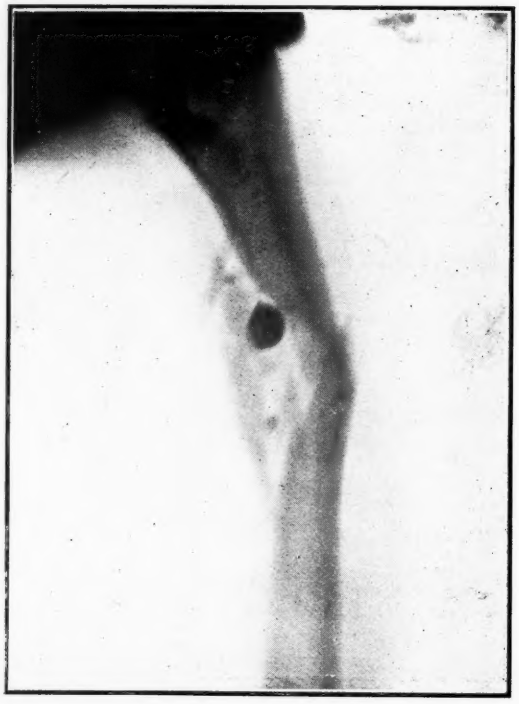
PLATE ILLUSTRATING DR. HERSHEL HARRIS'S PAPER.

Comminuted fracture of humerus and fragments of shrapnel shell.



Bullet in shoulder.

Piece of shrapnel in hand. Comminuted fracture of 3rd, 4th and 5th metacarpal bone.



Shrapnel in arm and resulting comminuted fracture of humerus.

Pearson to a treatment of systematic persecution, which rendered the position intolerable. Added to this, they threatened in ungrammatical English, to resign in a body if Dr. Pearson's services were not dispensed with. The Chairman of the Committee pointed out that the nurses had not carried out their part of the agreement honourably. The facts of the case disclose a want of harmony between the responsible medical officer and the nursing staff. Such things have occurred before, and the difficulties have been overcome by a skilful and diplomatic intervention of the Board. But in the present instance, the Committee was divided among itself, and some members sided with the nurses, while others took the part of Dr. Pearson. This created a deadlock, for, while it was quite impossible for the former to carry any resolution which would lead to the dismissal of Dr. Pearson, the whole Committee appeared to be afraid that the impulses of the nurses would close the hospital if something were not done. In the end, the Committee embarked on a policy of marking-time, more out of fear than because of any determination arrived at. This want of action on the part of the Committee had the effect of robbing the hospital of its excellent Chief Resident Medical Officer. On November 8, 1914, Dr. Pearson addressed a letter to the Chairman of the Board of Management, stating that he had made every endeavour to work harmoniously with the nursing staff, even to the sacrifice of some dignity and self-respect. His position, however, had become so intolerable and untenable in being asked to reply to such petty charges as had recently been put before the Board, which practically made him amenable to the dictation of the nursing staff, that he had decided to ask the Board to relieve him of his position on January 1, 1915. He agreed to serve the hospital even beyond that date, if a successor could not be obtained by the end of the year. This resignation has been accepted, and the nurses have succeeded in getting their own way. This is the essence of the Perth Children's Hospital trouble, and may be regarded as an excellent instance of weakness and incompetence of a Board to manage a public hospital to the advantage of the public. An attempt was made in the City Council to pass a vote of censure on the Board of Management, but on the representation that the Council had no power to do such a thing, the resolution was modified to a recommendation to the Board to put its house in order. A suggestion was thrown out that the hospital should be placed under effective control by the Government.

What are the functions of a hospital in Australia? This question must find a reply before it can be determined which form of administration is best suited to the requirements of the various institutions. In England, hospitals have been regarded as institutions where persons of the poorer classes can receive medical and surgical attendance. In the olden days, no difficulty arose in respect to the objects of the asylums for sick persons. But since the advent of modern surgery and medicine, the functions of hospitals have undergone certain modifications, inasmuch as many methods of treatment are in themselves expensive to carry out, and involve the expenditure of considerable sums of money in respect of nursing and other accessory means. The ordinary citizen of moderate means is therefore forced to apply for hospital treatment in many circumstances, because of his inability to pay for the necessary treatment. An attempt has been made to meet this difficulty by the institution of the so-called middle-class hospitals, and of paying wards in general hospitals, but, up to the present, the man of moderate means is not provided for, and is compelled to take advantage of institutions which were originally intended for the poor. The same problem has found its solution in Germany by the removal of gratuitous hospital treatment from all State and Municipal hospitals. Every inmate of the hospitals is charged for at the uniform rate of 2s. 6d. per diem, save in those cases in which three classes are provided for, and an extra charge is made for persons electing to go into the second or first class. The person without means is dependent on the poor law, and this authority has to pay the charge to the hospital each day that the pauper spends in the hospital. The wage-earner is paid for by his or her insurance society, while the person in earning who is exempt from State insurance has to find the fee himself. Hospitals in Germany are therefore no longer institutions exclusively for the medical treatment of the poor, and are not on a charitable

basis. In some States of Australia, the tendency of the Ministries in power is toward the removal of the restriction of according medical treatment at hospitals to the poor only. In New South Wales, the Minister for Public Health appears to favour the scheme of throwing the doors of all hospitals open to the whole population, rich and poor alike. This plan can only be carried properly into effect if the Government takes over the hospitals, but as long as they are supported by voluntary contributions, and are therefore in part at least charitable institutions, the hospitals in Australia must be regarded as places where the poor and those who cannot afford to pay for treatment outside can receive treatment free of all charge.

It must further be remembered that in Australia the majority of hospitals are dependent on subscriptions from the public and subsidies from the Governments. The man who pays the piper is said to have the right to call the tune. This would mean that the management of the hospitals should be placed in the hands of representatives of the subscribers and of the Government. But, as we have seen in the case of the Perth Children's Hospital, a Board of Management constituted of persons elected in this manner, being quite innocent of the rudiments of hospital management or skill in negotiation, makes a mess of its duties. A variety of suggestions have been made to get over this difficulty. None can be wholly satisfactory that depends on the adage quoted. The best form of administration and management would undoubtedly be that which places the whole responsibility on the shoulders of a Board of four experts. One of the members should be in control of the business affairs of the institution, and should be trained in business methods. The second should have a wide experience of the administration of charities, and should be the diplomatic member of the board. The third should be an expert in structural and hygienic arrangements of the institution, and should therefore be a trained sanitarian, and the fourth should be a medical man well versed in institutional management, and should act as the medical superintendent. The nursing staff should be under the direct control of the matron, who, in turn, should be directly responsible to the committee of four. This committee should accept full responsibility, and should be directly subjected to the control of the general body of subscribers and of the Government. This would remove any possibility of interference on the part of the man who finds the money, but retains for him the power of removing the directors should they fail to secure efficient administration and management of the institution under their control. Were the Perth Children's Hospital managed in this manner, we are convinced that an occurrence of the kind recorded would be impossible. And if the matron proved incapable of controlling her staff in a proper fashion, the Board would have power to ask her to make room for a more efficient successor.

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MEASLES IN MELBOURNE.

The "Age," in its issue of November 20, 1914, pluckily exposes the management of the Fairfield Infectious Diseases Hospital in its vain attempt to explain the refusal to admit a homeless patient suffering from measles. It appears that the Chief Medical Officer, Dr. Robertson, pointed out that the isolation and fever hospitals in Great Britain admitted morbilli patients, as well as patients suffering from other infective diseases. The sub-committee of the Board of Management replied in the most dogmatic manner that measles cases were refused at almost all hospitals in England. The "Age" proves from the returns of the hospitals of London, Liverpool, Glasgow and Edinburgh that this statement is very wide of the truth. The facts are even more striking than the figures quoted by the Melbourne journal suggest. Twenty years ago, the Metropolitan Asylums' Board Hospitals admitted scarlatina, diphtheria, enteric fever, typhus and a few other diseases, but not morbilli, save when in the form of a super-infection on scarlatina or diphtheria. Since that time, however, it has been found to be necessary to set aside a large number of beds for pure, uncomplicated cases of morbilli. During last year the number of admissions for measles exceeded those for scarlatina at several of the hospitals. A special pathologist has been appointed to investigate the causation of scarlatina and morbilli, and this pathologist finds more difficulty in obtaining material for his investigations in connexion with the former than with the latter. The "Age" further discusses the excuse offered that the admission of measles would form a danger to patients suffering from scarlatina and diphtheria. The experience of the Metropolitan Asylums' Board in London may again be referred to. In the days when uncomplicated cases of measles were not admitted wittingly, quite a number of patients were received with the diagnosis made by practitioners outside the hospital of scarlatina, but these cases proved to be instances of measles. A skilled physician can usually distinguish between the two diseases, even when the rashes are atypical, and the

medical officers of the fever hospitals were always on the alert to prevent a spread of measles among scarlatina or diphtheria patients, through the admission of a wrongly diagnosed case. Free use was made of isolation or observation wards with two or three beds. It was naturally not always possible to prevent a spread of infection, but a glance through the reports of those times will show that post-scarlatinal or post-diphtheritic measles was proportionately rare, and invariably called for special attention and precautions. Since measles' patients have been admitted into the hospitals, the problem has become less difficult, and by the provision of special wards for cases of combined infections, the difficulties attendant on the occurrence of measles in scarlatina or diphtheria wards have been materially diminished. We agree with the "Age," that the excuses offered by the Sub-Committees of the Board of Management of the Fairfield Infectious Diseases Hospital are lame and invalid.

INFANTILE PARALYSIS.

While the Health Department in Brisbane and the various city councils are wringing their hands in despair and issuing pamphlets on the nature of epidemic anterior polio-myeltis to the parents of patients and others who are equally incapable of understanding the subject, wisdom and assistance has come to the Brisbane people, quite unsolicited. The "Brisbane Courier" of November 17, 1914, contains a letter over the signature of "Herbalist," which should allay all the fears and bring calm to the disturbed minds of the scared population. The writer states that in spite of the medical scare, he can affirm that the disease is not contagious. But it is endemic or sporadic. Moreover, the man of wisdom announces his great secret to the world that the main feature of treatment may be summed up in two words—absolute rest. Nervines, scull-cap and ladies' slippers, we are told to do wonders, as does that potent alterative Iris versicolor. He gives further details, but since mere doctors may have difficulty in understanding the full significance of all this learning, we venture to limit our quotation to the foregoing. "Herbalist" writes from considerable successful experience. The daily press publishes in return for money the vaunts of the patent medicine vendor, in the shape of advertisements. In spite of repeated protests, this traffic is allowed to flourish, because it is profitable to the advertiser and the proprietor of the medium in which the advertisements appear. But in the present instance, we are faced with an entirely different problem, and it is with regret that we learn that a newspaper of the reputation of the "Brisbane Courier" should publish such trash as a dissertation on an insidious infective disease by a person whose knowledge on medical matters is negative. It is opposed to the public interest that views of herbalists and other unqualified practitioners should be brought prominently before the gullible reading public, more especially when the subject dealt with is producing albeit a little unnecessarily some alarm to the health authorities. When herbalists and other unqualified persons can demonstrate that they are capable of recognizing acute anterior polio-myelitis and of understanding its pathology and etiology, it will be time to modify our claim that the public must be protected from doctrines which are misleading and dangerous. We trust that the "Brisbane Courier" will be more careful of the public welfare in future.

GARBAGE DISPOSAL.

The Sydney City Council has had the subject of garbage disposal brought to its notice in a forcible manner on many occasions in the past. The latest complaint has been brought to the notice of the Minister for Public Health on November 20, 1914, by a deputation from several surf clubs and a number of prominent residents of Sydney. The story told was that the garbage is carried out a short distance to sea in punts, and deposited in situations from which the greater part of the rotting matter is washed back on to the beaches. Mr. Flowers recognized the seriousness of this state of affairs, and expressed the opinion that if the beaches were not kept clean, an epidemic would break out. It appears that the Moore Park dumping ground, which has been closed for some time on account of the nuisance from rats and flies, is to be re-opened, and further dangers may be anticipated from this source. Mr. Flowers expressed the opinion that the only safe method of dealing with garbage was to destroy it by fire. He undertook to confer with the Lord Mayor, and to attempt to guide the City Council into a better line of action. It is inconceivable that the City Council should need to be taught its business. The Medical Officer and the Sanitary Inspector should be strong enough to carry out a safe and efficient disposal of garbage in the largest city in Australia. Refuse destructors have worked excellently in all cities in which they have been employed. The method has proved itself economical, and far superior to the suggestion made at the deputation that the garbage should be taken out to sea beyond the 20 miles' limit. A lesson can be learned from Glasgow in this respect. The pretty and useful things made from the incinerated garbage returns quite a considerable sum annually to the health authorities, while the health of this thickly-populated city is safeguarded in a most efficient manner.

AN ENTERPRISING SOCIETY.

The Annual Meeting of the Australian Health Society, which was held in Melbourne on November 16, 1914, marked the termination of a useful year's work. The society aims at the spread of information regarding the health of the people, and at the same time deals out some useful lessons on temperance. Especial attention is paid to the young, and prizes are offered to State scholars for the best essays on various branches of hygiene and temperance. The examination of upwards of 138 scholars has been undertaken. This plan of stimulating the young to understand matters connected with health, and to value the preservation of the same, is excellent. Two vacancies on the Committee required to be filled, and the members chosen were Mrs. Hugh L. Murray and Dr. T. W. Sinclair.

Abstracts from Current Medical Literature.

MEDICINE.

(211) Amœbic Dysentery.

Baetjer and Sellards ("Johns Hopkins' Hosp. Bulletin," August, 1914) remark that it has been found that experimental amœbic dysentery in the lower animals runs a course which is strikingly similar even in the finer details to the rather complex course of the disease, as it occurs spontaneously in man. In fact, this similarity is so great that the study of the disease in lower animals is of direct value in the interpretation of the features that occur in man. After giving a synopsis of the literature, an account of some experimental inoculations, and a comparison of the gross pathology in both man and the lower animals, they give the following summary of their results: (1) The course of amœbic dysentery in cats corresponds very closely to the typical clinical picture which occurs in man. The acute and chronic forms of the disease, with the production of liver abscess and the carrier state, have been reproduced. No experimental evidence in cats was obtained which would suggest the occurrence of fatal intestinal amœbiasis without the symptoms of dysentery. Rare curiosities, such as brain and splenic abscess, have also not been reported in animals. (2) Cases of intestinal amœbiasis which are remarkably atypical occur in man. Upon re-inoculation of these strains into lower animals, infection takes place with the reproduction of the atypical features. (3) Extensive amœbic infection of the liver occurred in one animal, with the involvement of about one-quarter of the liver substance, with extensive necrosis and caseation, but without the formation of any fluid. Such a lesion, occurring in the depth of the liver, would give all the typical clinical signs of liver abscess, but could not be diagnosed at exploration by aspiration unless liver tissue, obtained in the aspirating needle, were examined. (4) The acute and chronic types of lesions corresponded in the essential features of their pathology to human conditions. The localization of the lesions, however, was rather different from that seen in man. (5) Three of four guinea-pigs inoculated with pathogenic entamœbæ contracted amœbic infection, but these animals proved unsuitable for study, on account of the atypical course of the disease, and their susceptibility to secondary bacterial infection. (6) Bacterial septicæmia was a prominent factor in causing death in the infected animals. There are several features which suggest that it may play a more or less prominent part in the course of the acute cases occurring spontaneously in man. (7) No crucial evidence was obtained experimentally that Entamœba histolytica is capable of causing a fatal infection in man in the typical course of the disease without the aid of secondary bacterial invasion.

(212) Acute Aplastic Anæmia,

Weber ("Proc. of Roy. Soc. of Medicine," May, 1914) describes the case of a young man aged eighteen years, a watchmaker by trade, who was admitted to hospital suffering from a microbic infection of the mouth, which showed itself by gingival stomatitis, a phlegmonous induration of the right cheek, and considerable pyrexia. His previous health had been good, but the autopsy showed the presence of some healed tuberculous lesions at the apices of the lungs. With the onset of the mouth disease he developed a grave form of anæmia, which progressed rapidly, and, in spite of the improvement in his mouth condition, ended fatally in ten weeks from the apparent onset. This anæmia differed from typical "pernicious anæmia," and from grave secondary anæmias, in its being much more pernicious and much more rapidly fatal. Blood examinations showed the almost complete absence of any "megaloblastic reaction," and of the blood regenerative changes which are so characteristic of pernicious and grave secondary anæmias. In this case poikilocytosis, anisocytosis and polychromatophilia were absent or only slightly marked, even when the total number of erythrocytes fell to below one million per c.mm. of blood. There were few megalocytes, and nucleated red cells were almost completely absent. The colour index varied from about ½ to 1, but it was usually much lower than 1. Simultaneously with the fall in red cells there was likewise a great reduction in the number of the white cells, about 2000 only being present per c.mm. of blood. Of the white cells the lymphocytes were least affected, and all the differential counts showed a decided relative lymphocytosis, but this was only relative, for the total lymphocytes numbered only 814 to 1550. The polymorphonuclear neutrophiles were much reduced, for in one count only 1000 were found, instead of the normal 4000 to 6000 per c.mm. of blood. The blood platelets were decidedly reduced below the standard. At the autopsy, the left humerus and right femur were removed and sawn through longitudinally. The bone marrow was almost entirely of the pale yellow fat kind, but the sawn surface of the upper end in both bones had a slight reddish brown tinge, as if a little hæmopoiesis had been going on there; in the diaphysis marrow there were a few red spots, notably in the humerus. Microscopic examination of the bone marrow where it was reddish brown in colour showed fatty tissue, with groups of cells interspersed between the fat vesicles, representing the hæmopoietic elements. In specially stained sections (May-Grünwald and Giemsa stains) it was evident that apart from the fat cells and erythrocytes, nearly all the cells were erythroblasts, though a large proportion of them consisted of a nucleus with hardly any visible cytoplasm surrounding it. Some of them were megaloblasts, and many of them had polychromatophilic or basophilic cytoplasm. Besides the erythroblasts, there were a fair number of mononuclear eosinophiles, and here and there some megakaryocytes were seen.

(213) Coccygodynia.

Frank C. Yeomans ("Med. Record," August 22, 1914) discusses the nature and treatment of coccygodynia, which has been variously described as a neuralgia, a neuritis, an injury of the coccyx resulting in fracture, dislocation, ankylosis or caries, and finally as a symptomatic or referred pain of central origin. Usually there is a history of injury, either from without, as in a fall, or from within, as in difficult labour. In front of the coccyx is a network of sympathetic nerve filaments and ganglia, many branches from which enter the dense fibrous structures around the bone. Injury and inflammatory reaction expose nerves to pressure, and there is usually one specially painful spot between the coccyx and anus on rectal examination. Diseases of the anus, rectum and genital tract must be excluded, as well as such general conditions as tabes, hysteria, etc. In seven cases of coccygodynia following injury, the author has obtained excellent results with injections of 80 per cent. alcohol into the most tender area. With one finger in the rectum to guard against puncturing it, and to act as a guide, 10 to 20 minims are injected, and the injection repeated three to five times at intervals of a few days. No case of recurrence has occurred in periods varying from one month to four years from the time of treatment.

(214) Syphilis of the Lungs.

Joseph Blinder ("Medical Record," August 22, 1914) reports a case of pulmonary syphilis, simulating tuberculosis. He states that syphilis of the lungs occurs more frequently than is generally appreciated. It is often treated as phthisis, and its frequent association with this disease renders its diagnosis more difficult. In the case reported, all the cardinal symptoms of pulmonary tuberculosis except hæmoptysis were present, namely, chills, afternoon fever, night sweats, cough, expectoration, chest pain, progressive loss of weight and physical signs of lesion at both bases of the lungs and the right apex. No tubercle bacilli were detected in fourteen examinations of the sputum, there was enlargement of the liver which in the skiagrams suggested a gumma, the Wassermann reaction was positive, and a history of chancre of the lip seven years previously was obtained. At that time he had had only one week of anti-syphilitic treatment. Recently the patient had been treated for a year for pulmonary tuberculosis without relief. Under treatment with intra-muscular injections of salicylate of mercury, with iodide of potassium and finally salvarsan, the symptoms and physical signs completely disappeared in three months. Repeated negative examinations for tubercle bacilli and localization of the disease, chiefly at the bases of the lungs should suggest the possibility of syphilis of the lungs.

NEUROLOGY.

(215) The Wassermann Reaction in the Acute and Chronic Insane.

Darling and Newcomb ("Journ. Nervous and Mental Disease," September, 1914) record their observations on the occurrence of the Wassermann reaction among the acute and chronic cases of insanity in the Warren State Hospital, Pennsylvania, U.S.A. Previous to September, 1912, this reaction was used only on cases suspected to be syphilitic, but since that time the test has been done on all cases admitted to the institution. Eight hundred and forty-nine specimens of blood were taken from a similar number of patients resident in the hospital previous to September, 1912. Of these, forty-three were positive—a percentage of 5.06. In the seventeen months elapsing since September, 1912, four hundred and fifty-two Wassermann tests were made as a routine procedure on all admissions. Of these, ninety-two were positive—a percentage of 20.4. The obvious explanation for the difference between these two percentages would be that cases of paresis and cerebro-spinal lues are usually well advanced when committed to an institution for the insane, and their hospital residence is brief when a fatal termination ensues. This assumption is proved to be correct by an analysis of both series of cases. In the routine series of cases since September, 1912, presenting ninety-two positive reactions, the subsequent course of these, proven by spinal fluid examination, physical and mental signs and general clinical course, shows that paresis or cerebro-spinal lues existed in fifty-five cases, or a percentage of 12.16. There remain 8.18 per cent. of the entire number of four hundred and fifty-two cases examined in which syphilis is present, but not to be held responsible for the psychoses. In the other series of Wassermann reactions of patients admitted prior to September, 1912, only two cases were proved to be paresis or cerebro-spinal lues, the remaining forty-one cases, or 4.94 per cent., though syphilitic, were suffering from psychoses not due to the luetic infection. It is therefore to be seen that, with the elimination of paresis and cerebro-spinal lues by the solvent of time from the ranks of the chronic insane, the incidence of syphilis, as shown by the Wassermann reaction, differs but little from the figures for the probable prevalence of this disease in the community at large. Also, by the exclusion of paresis and cerebro-spinal syphilis from the admissions since September, 1912, there is left a residue of not greatly different proportion of constitutional syphilis (8.18 per cent.), which is presumably not more responsible for the psychosis than is found among the chronic insane (4.94). Furthermore, the figures of this institution as to the prevalence of paresis and cerebro-spinal syphilis among admissions (12.16 per cent.) does not greatly vary from that given by other observers. Moreover, the percentage of positive Wassermann reactions (20.4 per cent.) found among the new admissions to this hospital is almost identically the same as shown by the statistics of similar institutions.

(216) Aplasia Axialis Extra-corticalis Congenita.

Batten and Wilkinson ("Brain," Vol. 36, p. 341) describe some cases of an unusual type of a familial and hereditary disease which they believe to be of the same nature as those described previously by Pelizæus and Merzbacher under the title of aplasia axialis extra-corticalis congenita. Six males were affected in two or more generations. The subjects of this disease are almost always males, and the condition is transmitted by unaffected females. Those affected are either congenitally diseased or exhibit symptoms in the first months of life, the progress of the disease being very slow. They are mentally defective and ataxic, show nystagmus, speech defect, and defective development, with weakness and spasticity of the lower limbs. The clinical characters of the disease recorded by Merzbacher are given as follows: The disease begins in the first months of life; it makes rapid progress till the sixth year, and subsequently the progression is slower. When fully developed it shows itself by nystagmus, slow speech, difficulty in the carrying out of motor impulses, disturbance of succession and co-ordination of movements, ataxia, intention tremor, mask-like expression, paresis of the back, pelvic and abdominal muscles, paralysis and spastic contraction of the lower extremities, increased knee jerks, Babinski reflexes, and absence of abdominal reflexes. Trophic disturbance of the bones, vasomotor disturbance in the lower extremities, and loss of mental capacity are frequently present. The patients may reach old age, and may die of some intercurrent disease. The following pathological conditions were found: A normally convoluted brain, but small in all dimensions. There was marked atrophy of the corpus callosum and fornix. Sections through the brain showed that the smallness of the hemisphere was due to marked atrophy of the white substance alone. The grey substance of the brain was of normal appearance. In the section without further treatment, long isolated spots in the white substance were seen. These spots were shown by the Weigert-Pal method to be due to the fragmentation of the sheath of the medullated nerves. In the central white matter of the various portions of the hemisphere, and in some convolutions, there were only small portions of normal fibre bundles remaining. The most affected parts were the corona radiata and the corpus callosum. In the frontal, occipital and temporal lobes and in the cerebellum the atrophy of the medullated fibres was most marked. Between the islands of the medullated fibres lay an unstained ground substance, which was composed of glia tissue. It is believed that the unstained tissue contains very fine axis cylinders, and that the interruption of these was only apparent. Neither in the ganglion cells nor in the cortex were any pathological changes visible. Batten and Wilkinson have only been able to give the clinical histories of their cases, as none of the patients had died up to the time of publication of their paper. They hope to be able to furnish pathological reports at a future date.

(217) Korsakow's Psychosis During Pregnancy.

Henderson ("Johns Hopkins Hosp. Bulletin," September, 1914) after a brief reference to the various forms of paralysis during pregnancy or the puerperium, quotes Korsakow's description of his polyneuritic psychosis and his account of a case occurring in the puerperium. Henderson then gives a full description of two cases occurring in the psychiatric clinic at the Johns Hopkins Hospital, in one of which this psychosis was associated with an extensive generalized polyneuritis, while in the other there were no neuritic symptoms, but mentally the picture was characteristic. After reviewing the literature, he refers to various opinions which have been advanced in explanation of the association of this psychosis with pregnancy and the puerperium. The relation of hyperemesis gravidarum to this condition seems to be a close one, especially in those cases which show a generalized type of neuritis. In addition to the excessive vomiting, the weak, exhausted, emaciated condition resulting from it, the retention of a macerated fœtus, the retention of placenta, and the involution of the uterus, have all been supposed to play a part. Another point to be emphasized is the much greater frequency with which multiparæ are effected as compared with primiparæ, the reaction apparently being of the nature of an anaphylactic phenomenon. The author concludes with the following points: (1) The pregnant state must in certain cases be recognized as an important factor in the production of peripheral neuritis, and of that condition known as Korsakow's syndrome. (2) The neuritis caused may be either local, affecting one nerve or one limb; or diffuse, affecting all the limbs, and certain of the cranial nerves. (3) The mental disorder characteristic of the condition is usually associated with a generalized polyneuritis, but it may occur alone. (4) The frequent history of hyperemesis gravidarum in association with the generalized forms of the disorder is so striking that it suggests a possible line of approach as to the elucidation of the nature of the toxin. (5) That patients who in previous pregnancies have suffered from severe vomiting or other serious toxic phenomena, should be warned against the risk of future pregnancy.

Contract Practice

VII.

Lodge Practice in Australia.

It is not our intention to trace the beginnings of contract practice in Australasia, nor to discuss the conditions which obtained at a period when the British Medical Association was so loosely organized that it was incapable of offering protection to the members of the profession. In 1896 Mr. Ludwig Bruck published a pamphlet in which he described the sweating of the medical profession by the Friendly Societies. The information contained in this pamphlet is reliable. It discloses that, at that time, the Friendly Societies throughout Australasia had taken advantage of the want of unity in the profession, and had systematically played one doctor off against another, in order to obtain some form of medical attendance for the members of the societies at the lowest possible contract rates, and under the most unsatisfactory terms. According to his estimate, about one-fourth of the total population was deriving medical treatment and medicines at a ridiculously low rate. He estimated that the medical officers received on an average 10d. for each consultation or visit. From the point of view of the history of contract practice in Australasia, this pamphlet is worthy of perusal. It was, moreover, the first attempt to find a solution of a very difficult question.

At the time when Mr. Bruck protested against the abuse of the provident system of providing the wage-earning section of the community, at a small annual cost, with medical attendance and medicine in case of illness, the members of the medical profession were using lodge practice as an introduction to the more lucrative forms of private practice. The earliest attempt to regulate the relations between the medical officers and the lodges was probably made by a meeting of the medical profession in New South Wales, under the auspices of the British Medical Association, in January of 1896. At this meeting it was resolved:—

> "That 1 per cent. on their annual earnings is a fair proportion to be paid by all members of benefit societies for medical attendance; and as the present recognized minimum rate (in the city of Sydney) of 16/ per annum is below this, no further diminution should be accepted by medical men."

It will be seen that while the evils obtaining in connexion with contract practice were fully recognized, and a definite object was aimed at, the profession was much too weak in its organization to take up a reasonable stand, and to carry into effect what it had determined was reasonable. About the same time the Australian Natives' Association in Victoria endeavoured to increase its political power by inducing its members to join ostensibly for medical attendance. This Association recognized that it would be possible to increase the number of its members very considerably if certain inducements could be held out. There is, however, no doubt that it has never been a Friendly Society in the true sense of the word, and the supply of medical attendance was merely used as a means to an end. The medical profession in Victoria recognizing the danger of abuse of the contract practice system if all members of the A.N.A. were to secure medical attendance through its organization, made an attempt in 1898 to resist the extension of the activities of the A.N.A., and issued a warning to the profession in New South Wales. Machinery had already been created by the New South Wales Branch of the British Medical Association to deal with cases of this kind by means of the rule of November, 1898, which reads as follows:—

> "That any medical man who has held or shall hold the position of medical officer to any Society which has been or shall be declared by the Council of the Association to be inimical to the interests of the medical profession, or who shall have held any lodge at annual fees per member below those approved of by the local Medical Association of the district in which the lodge is situated, shall, except in such circumstances as the Council may decide to be exceptional, be ineligible for membership of this Association for the period of five years from the date of his ceasing to hold such appointment, and shall not be met in consultation by members of this Association during the period of disqualification of its membership."

An attempt was made in Queensland as early as 1890 by the Medical-Ethical Society again to raise to £1 the capitation fee which had been reduced from £1 to 15s. during a time of financial depression. The attempt, however, was not successful owing to the fact that the members of the Queensland Branch refused to fall into line. In 1890 a large combination of friendly society lodges, called the Brisbane United Friendly Societies' Institute, was formed, and attempted to place a large proportion of the medical attendance in Brisbane into the hands of three medical practitioners. The Queensland Branch regarded the terms offered by this Institute as derogatory to the profession, and members were instructed not to accept the positions. The reasons given for the objection were firstly that only two-fifths or less of the members' contributions for medical attendance reached the medical officers; secondly, that the rate was much too low; and, thirdly, that no limit was imposed on the amount of work the salaried officers were expected to carry out. The Branch decided that none of its members should accept a rate lower than 15s. per member per annum. The organization of the Branch, however, was so incomplete that this resolution remained a pius desire, and was not enforced.

From these few examples it will be seen that the conditions governing the relations of the medical profession to the friendly societies up to a few years ago were identical with those governing the relations between the medical profession in England and the clubs, or the medical profession in Germany and the early insurance societies. The contracting party acting as middleman between the wage-earner and the doctor, took advantage of the isolation of the medical practitioner to depress the rate of remuneration, to increase the amount of work required of him, and to extend the principle of contract practice beyond its orignal or purposeful limits. The reaction came about the year 1905. Previous to this sporadic and partly successful attempts were made to cope with the difficulty, but no real progress was made. The profession laboured under the disadvantage of being made up of isolated units which had but little opportunity of co-ordinate action. All attempts at organizing the profession through the medium of the various Branches were handicapped by the facts that the Branches had difficulty in taking advantage of the machinery of the Association in England on account of the great distance, and that actions taken by any one State were in many cases inapplicable in any of the other States. Since combined action necessitated the intermediation of the Council in London, each Branch worked independently of its neighbour. It will therefore be necessary for the sake of clearness to deal with the development of medico-political organization in each State separately.

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British Medical Association News.

SCIENTIFIC.

In the report of the discussion on Dr. Hamilton's paper on "Pseudo-Hermaphroditism," published last week, we were unfortunately unable to include an abstract of Dr. Willcox's remarks.

Dr. Willcox said that he wished to thank Dr. Hamilton for his interesting paper dealing with such an important developmental condition. He supported Dr. Hamilton in the statement that the literature on the subject of hermaphroditism in the human being did not record any authentic and thoroughly investigated case of complete hermaphroditism (i.e., the presence of both gonads and the production of both ova and spermatazoa). Heape and Castle maintained that all dicecious individuals, arising as they do from the union of gametes—in which one sex is dominant and the other recessive—are embryologically potential hermaphrodites; so that no individual is purely either male or female, and, further, it is probable that the gametes (ova and spermatazoa) themselves each possess dominant male or female characters, as the case may be,

with the opposite characters recessive. When there is incomplete dominance of the characteristics of one sex and the recessive characters are more marked than normal, partial hermaphroditism results. It is generally conceded now that the condition as it occurs in the human subject is one of partial hermaphroditism, in which only one kind of gonad (either testis or ovary) is developed, together with accessory generative organs of both the male and female, and that in the human being there was no analogous condition to that of ova-testis as seen in lower animals. He knew the specimen of the individual with male external genitals and the presence of a well-formed uterus referred to by Dr. W. A. Verco, and had also seen the condition of a hypospadiac male with testis in the inguinal canal, which at first sight resembled the female genitalia. He further recalled an instance of an individual who went to the Gynæcological Wards of the Royal Infirmary, Edinburgh, some few years ago, under the impression that "she" was a female, having been brought up as such: in reality a hypospadiac male, who was accordingly discharged in male attire. The subject of Dr. Hamilton's paper appeared to him to fall under this heading, excepting that Dr. Hamilton had emphasized that there was no hypospadias. In all cases the factor determining sex must be the nature of the functionating gonad.

MEDICO-POLITICAL.

A meeting of the Council of the Victorian Branch was held in the Medical Society Hall, East Melbourne, on November 12, 1914, Dr. A. L. Kenny (the President) in the chair.

It was resolved to send a protest to the Inspector of Charities in regard to the action of a certain insurance company. This company announces its intention of paying to the public hospitals one pound for each week spent by the insured in the hospital while under treatment for accident or illness. The Council regarded this action as an exploitation of public charities for the aggrandisement of the company.

It was announced that the letters of guarantee provided by members to the bank for advance made to the "Australian Medical Journal" at its inception, had been returned to the guarantors with letters of thanks for the assistance rendered, without which the organ of the Branch would not have been able to play the useful part that it had done in the history of the Branch.

The following matter was brought to the notice of the Council: A group of insurance companies have taken steps for establishing a medical bureau for the purpose of undertaking the medical examination of workmen under the Workers' Compensation Act at fees considerably lower than those usually charged by doctors for this work. Other features of the scheme were also regarded as objectionable. The Council determined to intimate through the Underwriters' Association to the companies concerned that the Victorian Branch of the British Medical Association would oppose the bureau, and that it considered the work should be paid for per capita.

The Secretary reported that he had given evidence at the trial of Martin Roffe, who had represented himself as a medical practitioner, and that the said Roffe had been fined the maximum penalty with costs.

The following medical practitioners were elected members of the Branch:—

Dr. Frank Travis Wheatland, Alfred Hospital, Prahran.
Dr. Leonard Cyril Lade, Learmonth.
Dr. Harold W. Ward, Geelong Hospital.
Dr. Alexander H. Melville, 822 Lygon Street, Carlton.

At a second meeting of the Council of the Victorian Branch, held on November 18, 1914 (Dr. Kenny in the chair), the question of the proposed medical bureau was again considered, and the whole correspondence was referred to the Legislative Sub-Committee to deal with.

The Council expressed its approval of Professor Berry's scheme to transfer the medical school to a site on or near that of the Melbourne Hospital, and Dr. R. R. Stawell was appointed representative of the Branch to appear before the University Council to give expression to its views.

It was resolved to present Dr. Alex. Lewers with a gold watch (suitably engraved) as a mark of appreciation of the sterling work he had put in in connexion with his editorship of the "Australian Medical Journal." It was decided to make the presentation at the Annual Meeting.

A Sub-Committee was appointed to take the Workers' Compensation Act into consideration, and to report to the Council on its effect in regard to fees paid to medical practitioners.

The Annual Report was considered, and it was resolved that it be circulated among the members.

On the motion of Dr. A. V. M. Anderson, the Council affirmed its opinion that the State registration of nurses was desirable.

The following medical practitioner was elected a member of the Branch:—

Frederick William Grutzner, 15 Burnley Street, North Richmond.

The Council of the New South Wales Branch of the British Medical Association forwarded, on November 4, 1914, to Mr. Barr Brown, until recently the Honorary Organiser of the Branch, a cheque for £127, which amount had been subscribed by the members in token of their regard and in recognition of his generous services to the Branch. At the same time, the Council of the Branch wished him all success in the various enterprises connected with medical work in which he had engaged.

Mr. Barr Brown writes:—

" . . . Will you thank the Council for its kindly expressions of goodwill, and also express to the members of the Branch my grateful thanks for having so generously subscribed to the handsome present."

The following persons have been elected members of the New South Wales Branch:—

Dr. E. J. Stuckey, Peking, China.
Dr. Noel E. Kirkwood, Gladesville.
Dr. Leslie William Dunlop, Sydney.
Dr. William Alexander Dunn, Sydney.
Dr. James Joseph Duhig, Bundarra, New South Wales.

The following person has been nominated for election to the New South Wales Branch:—

Dr. John Thomas P. Tansey, 28 College Street, Sydney.

A meeting of the Western Australian Branch was held at the Perth Public Hospital on October 21, 1914, Dr. Lotz, the President, in the chair.

A letter was read from Dr. Hope, Commissioner of Health for Western Australia, advocating that venereal diseases should be included among the diseases treated under Lodge Agreements. On Dr. Seed's motion, seconded by Dr. Merryweather, it was resolved that Dr. Hope be informed that the Western Australian Branch was unable to agree to his recommendation. It was pointed out that free treatment was provided by the Government for persons who were unable to pay. The majority of lodge members were in a position to pay for treatment, and it was consequently held that the onus of providing free treatment should not be thrown on the medical profession. The opinion was expressed that it would be especially unfair to expect the lodge doctors to administer salvarsan gratuitously.

A letter was read from the Secretary of the Perth United Friendly Societies' Institute and Association, enquiring what decision the Branch had come to in regard to according treatment to the members of Friendly Societies or their dependents, in those cases in which the member was serving the country in the war. It was further pointed out that the Institute would wish to know whether members would be accepted on the lists supplied by the Societies of which the members of the British Medical Association were the medical officers, in the event of these members returning from the war injured or suffering in bodily health.

It was moved by Dr. Officer, seconded by Dr. Gill, and resolved:—

> "That dependents of members of Friendly Societies going to the war will be treated gratuitously during their absence, and, further, that members who return from the war incapacitated from earning a living will be treated gratuitously with their dependents so long as such incapacity lasts."

Dr. Trethrowan moved, and Dr. Merryweather seconded, a resolution to the effect that 20/- per member per annum be paid for the "Journal"; the subscription to the Branch would not be increased for this purpose,

On Dr. Seed's suggestion, it was resolved that a letter of condolence be sent to the widow of the late Dr. Harvey, of Leederville.

BRITISH MEDICAL ASSOCIATION (AUSTRALIA) MILITARY MOTOR AMBULANCE FUND.

Up to November 24, 1914, only 355 members of the British Medical Association in Australia, out of a total of 2,500, have responded to the appeal of the Federal Committee to subscribe to the Fund for providing one or more motor ambulances for the assistance of the Army Medical Corps in the European battlefields. The list printed below contains but 80 names, as compared with nearly double the number in last week's list. We trust that members will recognize the desirability of rendering this movement on the part of the Federal Committee a really representative one, and that every member in the Commonwealth will send in a subscription, even if it be of a very small sum. The total up to November 24, 1914, amounts to £746 15s. 6d.

Third List.

	£	s.	d.
Dr. Quirk, D. T., St. Kilda, V.	2	2	0
„ Mayo, Helen, Adelaide	1	0	0
„ Scott, K., Brisbane	5	5	6
„ Owen, G., Camperdown, V.	1	1	0
„ Morgan, G. H., Hamilton, Tas.	1	1	0
„ Smith, S. A., Sydney	3	3	0
„ Howard, H., Melbourne	1	1	6
„ Ure, Edith, Brisbane	1	0	0
„ Craig, W. J., Box Hill, V.	1	2	0
„ Murray, J. A. J., Armidale	1	1	0
„ Arkle, J. Vere, Kalgoorlie, W.A.	1	2	0
„ Trethowan, W., Perth, W.A.	2	2	6
„ McCall, J., Leonora, W.A.	2	3	6
„ Sexton, Helen, Melbourne	1	1	0
„ Merryweather, R. C., Perth, W.A.	1	1	0
„ Patrick, J. F., Scottsdale, Tas.	1	0	0
„ Cooper, C. T., Norwood, S.A.	2	2	0
„ Hull, Walter, Sydney	2	2	0
„ Moule, E. E., Wagin, W.A.	2	3	0
„ Jenkins, Edward J., Sydney	3	3	0
„ Wherrett, E. A., Marrickville	1	1	0
„ Jamieson, Sydney, Sydney	1	1	0
„ McClelland, W. C., Newtown	1	1	0
„ Watson, F. R., Katoomba	1	1	6
„ Welsh, Prof., Sydney	1	12	0
„ Windeyer, J. C., Sydney	3	3	0
„ Moray, J. M., Winton, Q.	2	0	0
„ Boyd, W. R., Richmond, V.	5	5	0
„ Winterbotham, L. P., Annesley	2	0	0
„ Hunter, James, Gosford, N.S.W.	1	1	0
„ Johnston, A. G., Riverstone, N.S.W.	1	1	0
„ Morris, Arthur, Melbourne	1	10	0
„ Lipscomb, T. W., Leichhardt	2	2	0
„ Norrie, Andrew, Sydney	1	1	0
„ Norton, T. W. W., Melbourne	1	1	0
„ Muscio, A., Emmaville, N.S.W.	2	2	0
„ Halliday, J., Sydney	2	2	0
„ Sutton, C. B., North Carlton, V.	1	1	0
„ Downing, H. D., Footscray, V.	1	2	0
„ Halford, A. C. F., Clayfield, Q.	1	1	0
„ Faul, G. W., Brisbane	1	1	0
„ Elwell, Bellford, Stanthorpe, Q.	2	2	0
„ Newton, A., Melbourne	2	3	0
„ Miller, F., Maryborough, Q.	1	1	0
„ Newman, F. J., Geelong, V.	1	1	0
„ Armstrong, George, Sydney	1	1	0
„ Litchfield, W. F., Glebe	2	2	0
„ Croker, J., Geelong	2	0	0
„ Brummitt, R. D., St. Peter's, S.A.	1	1	0
„ Page, E., S. Grafton, N.S.W.	1	1	0
„ Anderson, T. L., Fremantle, W.A.	1	0	0
„ Mackay, N. G., Adavale, Q.	1	1	0
„ Turner, A. J., Brisbane	5	5	0
„ Butcher, C. B. D., Pittsworth, Q.	1	1	0
„ Simmons, W. T., Summer Hill, N.S.W.	1	1	0
„ Lewis, J. B., Narrogin, W.A.	1	2	0
„ Miller, R. C., Bankstown, N.S.W.	2	2	0
Dr. Robertson, W. N., Brisbane	2	2	6
„ Woinarski, V. J., Melbourne	1	0	0
„ Jay, M., Adelaide	1	1	0
„ Hamilton, C. W., Adelaide	1	2	0
„ Vernon, G. H., Winton, Q.	5	1	0
„ Ridley S. J., Oakleigh, V.	2	2	0
„ Hughes, Kent, Melbourne	5	1	0
„ Shepherd, Cyril, Sydney	1	1	0
„ Macintosh, A. H., Leura	2	2	0
„ Booth, J., Broken Hill	0	10	6
„ Chambers, R. W. V.	1	0	0
„ Stuart, Sir T. Anderson, Sydney	2	2	0
„ Shorney, H., Adelaide	1	1	6
„ Duguid, C., Adelaide	1	1	0
„ MacDonald, A. J., Laidley, Q.	1	1	0
„ Young, R. W., Botany, N.S.W.	1	1	0
„ Phipps, M. W., Barraba, N.S.W.	1	1	0
„ Cameron, J. A., Ipswich, Q.	5	0	0
„ Nesbitt, D., Swan Reach, S.A.	2	0	0
„ Blue, A. J., Redfern, N.S.W.	1	1	0
„ Harbison, D. T., Bowral, N.S.W.	1	1	0
„ Brummitt, Elliott A., Adelaide	2	2	6
„ Tidsdale, Frank, Sydney	1	1	0
„ Lendon, A. A., Adelaide	1	1	6
„ Borthwick, T., Adelaide	1	1	0

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Public Health.

HEALTH OF NEW SOUTH WALES.

The following notifications have been received during the fortnight ending November 28, 1914, by the Department of Public Health, New South Wales:—

	Enteric Fever. Cases.	Deaths.	Scarlet Fever. Cases.	Diphtheria. Cases.	Deaths.	Infantile Paralysis. Cases.
Metropolitan Combined Districts	18	—	67	37	—	1
Hunter River Combined Districts	4	—	7	2	—	—
Remainder of State	49	5	25	91	3	—

Out of the 71 cases of enteric fever, 10 occurred in Broken Hill. The largest aggregation of diphtheria cases was at Broken Hill, where there were 17 cases. There were 15 cases at Tibooburra.

SMALL-POX IN SYDNEY.

The number of small-pox cases reported to the Department of Public Health, New South Wales, during the week ended November 22, 1914, was:—

City of Sydney and Metropolitan District	8
Country—Moree district	1
Yass district	1
Total	10

INFECTIVE DISEASES IN QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ended November 14, 1914:—

Notifiable Disease.	Cases Reported.
Enteric Fever	21
Diphtheria	40
Varicella	28
Phthisis	7
Erysipelas	3
Scarlet Fever	3
Puerperal Fever	1
Infantile Paralysis	38
Total	141

SCHOOL HYGIENE IN QUEENSLAND.

In the Annual Report of the Secretary for Public Instruction, Queensland, the reports of the Medical Inspectors of Schools, of the Dental Inspectors of Schools, and of the

Ophthalmic Inspector of Schools appear as appendices. Dr. Eleanor Bourne has examined 5,027 children during the year. Of these 1,269, or 25.24 per cent. were found to be suffering from physical defects, which required immediate attention. 762 children had defective teeth, 363 had adenoid vegetations, 355 enlarged tonsils, 88 defective vision, 50 weak hearts, 19 were suffering from deafness, and number varying from 5 to 1 from various other defects. In regard to the defects including those which did not call for immediate treatment, Dr. Bourne sets out some detailed information. The majority of the visual defects discovered only amounted to 6/9 vision, whereas notification is only sent to the parents when the vision is as poor as 6/12. Of the organic cardiac defects there were 37 instances of mitral regurgitation out of a total of 50. 38 cases of dilatation, and 74 of hæmic bruits are recorded. A table of physical deformities is given, in which Dr. Bourne's diligence in anthropometrical observations is clearly discernible. An attempt has been made to set out the association between physical, nutritive and intellectual development. The table in which the figures are given would have been more useful if it were not so overloaded. The percentages in each intelligence group of the children who show various forms of physical defects, does not convey what is obviously intended. A clearer idea of the association of somatic and psychic departure from the average would be obtainable, if the percentages expressed had reference to the total number of children, and not to the number of children in any one intelligence group. The weight and height of the children at various ages are set out in tabular form, and graphically as curves. Dr. Bourne has taken endless trouble to prove that the height and weight curves of children in England, Brisbane, West Queensland, Central Queensland, Tropical Queensland, and Toowoomba coincide almost exactly. A very small portion of her report deals with the practical aspect of school hygiene.

Dr. Sweet records the results of 3 months' work in Ipswich. The number of children on the rolls of the schools visited was 3,251, and the number of children inspected 2,510. Of this number defects requiring medical or surgical attendance were discovered in 747 instances. 29.76 per cent. of the defects discovered were notified to the parents. 36.4 per cent. of the defective children notified in 1911 received medical attendance within a few months; 21.2 per cent. of the defective children disregarded the advice given, and 42.4 per cent. disregarded the notification. Dr. Sweet details the method of inspection employed. In the larger schools this is carried out in a light and quiet class-room. The information gathered from the parents is first of all entered on the cards. The next step is to demonstrate to a class of elder children what was required of them in the determination of vision with the Halley-Hogg test types. The teacher then proceeds to demonstrate the same to the younger children. At the same time, the sight of the elder children is examined. The children are then taken in small groups, and arranged in a row facing a wall. The clothes are loosened and the outer garments removed. Each child is then called separately for inspection. The inspection includes an investigation of the school building and grounds, an enquiry into the individual hygiene of the children, an examination of the clothes, and the usual medical examination. Antropological records are only kept in selected cases. Dr. Sweet found a fairly satisfactory state of cleanliness among the children examined. An improvement in the condition of the teeth was also noticed. Under 1 per cent. of the children showed dental defects which necessitated notification. This low figure is, however, due to the fact that only urgent cases were advised to go to an outside dentist, as a school dentist has since been appointed. Adenoid vegetations were notified in 12.3 per cent. of the children, and nasal obstruction in 1.6 per cent; 6.3 per cent. of the children were suffering from hypertrophied tonsils; 3.7 per cent. from defective vision, and 20.8 per cent. from conjunctivitis; 0.87 per cent. from deafness; 118 children were examined for phimosis, and 16 per cent. of them were notified as requiring operation.

Dr. Buchanan appends a brief report for the year's work. He states that the physique was up to the standard, and that it was noticeable that the immigrant children were one year in advance of the local children. The intelligence of those examined was good; 1 per cent. were brilliant and 1 per cent. were mentally defective.

Dr. Nesbet reports from Townsville, where he examined 856 children. In 80 cases there were defects of the throat; in 41 defects of the eye; one child was deaf; two had scoliosis; 41 had other affections of bones; 17 were suffering from anæmia; 18 were mentally deficient; 1 had heart disease; 2 had infantile paralysis, and one had tuberculosis of the hip joint. In three cases pediculi were found.

The reports of the Chief Dental Inspector, Mr. Haenke, and of his two assistants, are full of interesting material: 8,354 children were examined during the year 1913; 1,378 mouths were clean, 5,142 were fair, and 1,834 were dirty. Only 412 children had sound mouths. In all, 45,413 carious teeth were discovered, which gives an average of 5 decayed teeth per child. Mr. Haenke expresses the opinion that acidity of water does not exercise a deleterous effect on the teeth, but may be indirectly beneficial. In regard to fruit eating, those children who enjoyed a moderate and regulated amount showed a smaller percentage of defects, while those who ate excessive quantities continuously were affected more severely. The report includes an account of the clinical work undertaken in the school department of the Brisbane Dental Hospital, of the educational value of the system, and of the methods adopted in the country schools.

The last report is that of Dr. Douglas Rodger, the Ophthalmic Inspector of Schools. At first his work was confined to the South-western portion of the State, but during the latter part of the year he extended his sphere of activity to the North and North-western districts. In all, 3,624 children were examined. He states that the system instituted by the Department of granting the local medical practitioners the sum of £50 per annum for the treatment of the affected children has proved very satisfactory. Considerable difficulty had to be overcome, partly on account of the unreasonable attitude of some ignorant parents, who insisted on treating the eyes of their children themselves, and refused to allow a doctor to attend to them. Dr. Rodger reproduces a number of amusing letters from parents who assumed an obstinate attitude. He states that a number of the teachers have rendered most valuable assistance to the local doctor in the furtherance of the work. During the year, 343 cases of undoubted trachoma and 68 of suspected trachoma have been detected. The form of disease met with in Queensland is essentially a chronic one, and, though formidable in appearance, is amenable to treatment. Dr. Rodger is of opinion that its frequency is diminishing in the west. He does not state which therapeutic remedies have been adopted by the practitioners treating these patients, and what the results were. He advocates frequent washing of the eyes with boracic lotion as a general prophylactic measure, in addition to the wearing of fly-veils. Fly-screens are also regarded as an important factor in the prevention of eye disease. He condemns the common use of towels as a fruitful source of infection. In regard to vision, 275 trachomatous children and 321 non-trachomatous showed some recognizable defects. In all, 596 children showed a vision worse than 6/6 J1.

Vital Statistics.

NEW SOUTH WALES.

The Government Statistician has issued his return of the vital statistics affecting the metropolis of Sydney and the Newcastle district for the month of October, 1914. In regard to Sydney, there has been a fall in the number of births, illegitmate births, deaths, and deaths under 1 year of age. The birth-rate was equivalent to an annual rate of 28.63 per 1000 of population; the illegitimate birth-rate was equivalent to an annual rate of 1.98. The death-rate was equivalent to an annual death-rate of 9.36 per 1000 of population. The number of deaths of infants under one year of age equalled 42 per 1000 births. Pulmonary diseases accounted for 60 deaths, Bright's disease for 44, and apoplexy for 27. These numbers were larger than the average number in October during the previous 5 years. In regard to all other causes of death, the numbers showed a decrease. Diseases of the heart produced 57 deaths, cancer 49, devel-

opmental diseases of infants 47, pulmonary tuberculosis 43 senility 25, accident 24, diarrhœa and enteritis 13, and epidemic diseases 11. Of the last group, 3 deaths were due to enteric fever, 3 to scarlet fever, 3 to influenza, 1 to diphtheria and 1 to erysipelas.

The Statistician sets out in tabular form the number of births and deaths without and within hospitals and other institutions; 265 births took place in hospitals and other institutions out of a total of 1731. There were in all 566 deaths registered, of which 230 occurred in hospitals or institutions.

Among the causes of death were 11 affecting in the puerperal condition. In 2 cases the death was due to an accident in pregnancy, in 2 to puerperal hæmorrhage, in 5 to septicæmia, in one to eclampsia, and in 1 to alba dolens. Forty-three infants died; 21 of congenital debility, etc., 18 of premature birth, 1 of injury at birth, and 3 of other diseases peculiar to early infancy. The returns for the Newcastle district show a birth-rate of 3.07 per 1000 of population, which is equivalent to an annual rate of 36.84. Fifteen of the 177 children born were illegitimate. The death-rate was 1.14 per 1000 of population, which is equivalent to an annual rate of 13.68. Sixteen of the 66 deaths occurred in public institutions. The causes of death included pneumonia in 8 instances, cancer in 6, developmental diseases of infants in 5, and diseases of the heart in 4. Two fatal cases of diphtheria occurred. Notifications of 7 cases of enteric fever, of 13 of diphtheria, and of 24 of scarlatina were received during the month. Five deaths occurred in early infancy, of which three were due to congenital debility and two to premature birth.

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Special Correspondence.

(From our Special Correspondent.)

LONDON LETTER.

The Doctor of the Future.

The annual distribution of prizes at St. Thomas's Hospital was made on June 30th.

The chair was occupied by the Treasurer of the Hospital (Mr. J. G. Wainwright), who, in the course of a short introductory address, said that the hospital was establishing research wards for male and female patients, that were to be under the control of professors and of the staff. The governors had set aside £8,000 for the purchase of radium, a sum that would provide five hundred milligrammes. As a result of the Insurance Act, the Hospital had been relieved of a large number of the more trivial cases, and in the last year there had been 45,000 fewer cases of smaller ailments. It had, however, increased the expenses of the special departments. The new tuberculosis dispensary had proved of great value both to patients and students. Another new departure was the establishment of a department of neurology. The baby clinic had increased beyond all measure, and was of great value both in teaching the mothers of the babies how they should take care of them and feed them, and also in giving valuable experience to the students. In the last year the hospital had surpassed all its previous records, 9,267 cases having been admitted to the wards, being 495 more than ever before. He could not, however, avoid a feeling of anxiety when he remembered that in the first year of his treasurership, thirty-four years ago, the expenditure of the year was £42,000, whereas last year it had mounted up to £76,000. He appealed to the friends of the hospital to remember the increasing expenses in which the hospital was involved.

The prizes were distributed by Sir Thomas Clifford Allbutt, who subsequently delivered an address to the students. He said he was glad to see that the young men were still like a pack of hounds following a breast-high scent in full dash after the subtle quarry of truth. It was a great joy to all those of the older generation to feel that the splendid results of the last half century would be carried forward even more brilliantly by the great men of the rising generations. The advance was largely due to that analytical reason known as science. It would not, however, be all for the best if the men of science had it all their own way. Practical men said that there was something very much more in practice than scientific and analytical knowledge. Why was it that the practical man had so much contempt for the young men who came from the training schools? The fact was that in the art of medicine there was something much more than science could give. The training of the hand and eye gave a certain facility and power that could not be obtained by any amount of school training. The young man was apt to look upon the older practitioners as duffers, but the young and the old were necessary to each other. Even in the laboratory the skilled technical hand knew that he could do more by his own instinct than one who had only a theoretical training. The practical men were, however, under the disadvantage that they had no grip of principle. Their mind was not flexible; it was all right for the work of to-day, but not for the work of to-morrow. Small revolutions in practice meant the scrapping of old methods.

There was now no lack of men who were going out into general practice into the towns and villages. That would lift up the whole scheme of general practice. Much more than this, however, was wanted, especially in the specialisms of medicine. The only possible outcome of the present tendency could be that foreshadowed in the recent Budget which contained a scheme for establishing in such available centres as the country towns special departments where the panel practitioner should have it in his power to command any specialist services that he needed. That would lift English medicine to a level that it had never yet attained. The time of medicine was coming. With the scientific centres to exhilarate the practitioners, medicine would be seen reaching the social value and social consideration it so thoroughly deserved. A great career was thus opened to a man, both in general practice and in medical science. Cambridge had been the first place in this country to establish a research hospital. The Committee of National Research were setting up another, while St. Thomas's Hospital were nipping in and bringing into existence what would be the second in the country. Patients were very willing to come into these research hospitals, and he congratulated the hospital most cordially on the new departure.

In conclusion, Sir Clifford Allbutt spoke of the need of establishing a Ministry of Health. There was a need, too, for a study of comparative medicine. Medicine was to-day in the position occupied by astronomy in the days before Copernicus. Everything was centred in man-medicine, whereas, if great progress was to be made, the medicine of the gooseberry bush should be studied.

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Correspondence.

Sir,—Dr. Alexander Stark Ogg, upwards of 30 years ago, was practising his profession in Queensland, when he had an attack of paralysis, which caused his right hand and arm to become useless. He came to this State, and entered on the practice of his profession at Gundagai, but owing to physical disability had to give it up. Since 1884 he has been engaged by the A.M.P. to accompany their company agent. A second attack of paralysis in August last year has left him physically incapacitated to practice his profession, and although in fair bodily health, he cannot walk, and he is practically bedridden.

Unfortunately Dr. Ogg, who resides at "Kuranda," Beach Street, Coogee, has exhausted his means. Mrs. Ogg, with true wifely devotion, has nursed him capably, day and night. After consultation with friends, it is thought that his more fortunate brethren in the profession would not hesitate coming to his assistance in his urgent financial embarrassment.

It is popularly known that Dr. Ogg bears the highest reputation. I therefore have every confidence in laying the case before your readers for early consideration, and will gladly receive contributions.—Yours, etc.,

G. S. STEVENSON,
Ex Police and Stipendiary Magistrate.

Post Office Chambers,
Pitt Street, Sydney,
November 18, 1914.

Medical News.

In our account of the meeting of the Council of the Melbourne University, at which Professor Berry's scheme for the re-building of the medical school in or near the Melbourne Hospital, published last week (page 501), we unwittingly misrepresented what Professor Berry actually said in regard to the support given to his scheme by the medical profession. We offer Professor Berry a sincere apology for having criticized this alleged statement. It appears that he laid before the Council the opinions expressed by the members of the Melbourne, St. Vincent's and Alfred Hospitals, by the members of the medical staff of the University of Melbourne, by the Faculty of Medicine, and by the "Medical Journal of Australia" in the exact words utilized.

Professor Berry has issued an "open letter" to the Council of the University of Melbourne, setting forth certain details of his scheme, and meeting the objection raised to it. The letter concludes as follows:—

As the object of a Medical School is the creation of efficient medical men to combat disease, and to advance medical knowledge, and as those engaged in such pursuits require every assistance that the anatomist, physiologist, bio-chemist, bacteriologist, and pathologist can give them, the State demands the co-operation of basal laboratory and hospital. Such must therefore be in contact, and all objections thereto are necessarily of a minor character.

"As a University has a mission greater than the formation of a large student body, or the attainment of institutional completeness, namely, the duty of loyalty to the standards of common honesty, of intellectual sincerity, of scientific accuracy," there is only one way by which it can carry out its duties to the State which aids it, to the people who support it, and to those whose very life depends upon it, and that is by the recognition of the fact that national efficiency can only be obtained by placing theory and practice in actual working contact.

Messrs. Butterworth & Co. (Australia), Limited, are now collecting information for the 1915 issue of the Medical Directory. The 1914 edition was not as satisfactory as a standard professional directory should be, but special attention is being paid to the compilation of the work for next year, and the publishers hope to offer the medical profession a directory of value. The utility of a directory depends on the completeness of its records, and it is therefore highly desirable that every medical practitioner in the Commonwealth of Australia, in the Dominion of New Zealand, and in the Islands, etc., should fill in the necessary details as fully as may be desired, and return the forms which have been sent out, promptly. The firm has moved into larger premises in Phillip Street, Sydney, where library rooms are open to the members of the medical profession.

The Committee of the Blind, Deaf and Dumb Institution of Brisbane, discussed with the Home Secretary on November 11, 1914, the effect of the reduction of the Government subsidy from 20s. to 15s. It was pointed out that the effect of this reduction would be so great a loss to the institution that it would be necessary for the Committee to close the industrial department. This would mean the dismissal of 85 male and female workers, who, on account of their physical defects, were not competent operatives, and would, therefore, find it impossible to obtain employment outside. During the past year the institution had been run at a loss of close on £500. The Committee appealed to the Home Secretary for the restoration of the full subsidy, in order to prevent the inmates from drifting into the Government asylums at Dunwich. Mr. Appel promised to consider the matter, and to give the Committee a reply within a short time. He admitted that the institution was most admirably managed and controlled. The Government would have to decide whether it proposed to bear the cost of maintaining the blind through the blind asylum or at Dunwich.

The Department of External Affairs has been advised by the Consul for the Netherlands that the Governor-General of Dutch East Indies will grant, under certain conditions, to medical men, registered in any country or colony, the right to practice as a ship's surgeon on board Dutch-Indian vessels. This action is in accordance with an ordinance, dated September 11, 1914. Medical practitioners who have been registered by the Australasian Medical Boards will consequently be able to obtain permission to practice in the manner stated above on application to the Consul.

Considerable feeling has been evinced at the action of the Queensland Government in cutting down the subsidy to the Ambulance Brigade at Dalby, from 20s. for each £1 to 15s. It was pointed out on November 10, 1914, at a meeting of the Brigade, that the majority of the country centres had arranged their programmes in anticipation of a £ for £ subsidy. In Dalby considerable extension of work had been undertaken for the purpose of benefitting settlers in the outlying centres where medical assistance was not available.

Dr. Arthur Wigmore, of Kurri-Kurri, has been committed for trial on the charge of manslaughter on the coroner's warrant. It appears from the evidence given at the inquest, held on November 17, 1914, on the body of a child, aged nine months, that the cause of death was opium poisoning, and that Dr. Wigmore had given the child a powder without weighing the quantity, believing that he was handling jalap. Bail to the amount of £200 was allowed. The trial will take place during the next sessions at Newcastle.

The Council of the University of Melbourne has conferred the degree of M.B., B.S. on Hildred Irving, Carlile Clelland Pigdon, and Douglas Clelland Pigdon, and the degree of M.D. on David Moore Embelton, and William Walter M'Laren. We understand that all these gentlemen are members of the second expeditionary force.

Dr. John Stewart, who is leaving Georgetown for Port Adelaide, was entertained by the residents at a smoking concert on November 13, 1914. A presentation was made to Dr. Stewart, in recognition of his valuable services.

The Sydney Hospital Branch of the Sydney University Medical Society informs us that certain periodicals are needed for their library. The journals sought are: "British Medical Journal" up to 1908, "Australasian Medical Gazette" up to 1912, "Lancet" from 1882 to 1890, and the "Journal of the Sydney University Medical Society" from the commencement up to 1908 inclusive. It will be greatly appreciated if members of the Association who have any of the above journals on their book-shelves would present them to the library.

Naval and Military News.

The following appointments have been gazetted:—

Army Medical Corps.

To be Majors—
- Major C. L. Strangman, from the Australian Imperial Force.
- Honorary Major A. Watson, Australian Army Medical Corps Reserve.

To be Captains—
- Captain H. H. Field-Martell, Australian Army Medical Corps.
- William Garfield Forde.
- Captain J. W. Parsons, unattached list.
- Captain F. D. W. Oatley, 11th Light Horse (Australian Horse).
- William Foster Simmons.
- Reginald Fitzherbert.
- Cedric William Whiting.
- John Mitchell Mehaffey.
- John Wellesley Flood.

To be Lieutenant-Colonel—
- Major H. K. Bean, Australian Army Medical Corps.

Personal.

Dr. Cuthbert has removed to 149 Beaufort Street, Perth, Western Australia.

Dr. Gwynne-Hughes has resumed practice at 193 Macquarie Street, Sydney.

We are informed that Dr. A. A. Martin, of Palmerston North, New Zealand, has been attached to the Royal Army Medical Corps as temporary lieutenant. Dr. Martin has been touring the United Kingdom, United States and

Europe, investigating the proposed establishment of a radium institute in the North Island.

The Mayor and residents of Maitland, South Australia, entertained Dr. L. O. Betts at a smoking concert on November 9, 1914. Dr. Betts is a member of the second contingent of the Australian Expeditionary Force, and is attached to the Field Ambulance Corps. From the numerous appreciative speeches, it appears that Dr. Betts enjoys considerable popularity in the district. The Mayor presented him, on behalf of the residents, with a wristlet watch.

We learn that Dr. Frank R. Kerr, the Victorian Rhodes scholar for 1913, who was in South America during the Oxford University vacation when the war broke out, has returned to England and has obtained a commission as lieutenant in the R.A.M.C.

Dr. Charles Reece, of Hamilton, New Zealand, returned to Auckland by the "Niagara" from Vancouver on November 15.

Dr. G. A. Forrest, of Wellington, New Zealand, has returned from Vancouver by the "Niagara."

The Authors' Club, of London, has elected Dr. Stewart M'Kay, of Sydney, a member of the club, in recognition of his published contributions to surgery during the last 20 years.

Dr. E. E. Fox has resigned his position as Medical Officer of the Surat Cottage Hospital, Queensland.

Medical Appointments Sought, etc.

LOCUM TENENS.—Fellow of the Royal College of Surgeons of England desires position as locum tenens early in December. Apply by letter to No. 645 "Medical Journal of Australia," Melbourne or Sydney.

TO LET.—Professional Suite, first floor Saunders Chambers, 245 Elizabeth Street, overlooking Hyde Park. Five large rooms and offices with modern conveniences, electric light and elevator; if required could be sub-divided. For further particulars apply Caretaker on premises or to A. Saunders, 805 George Street Sydney.

FOR SALE.—15 h.p. Cottin Desgouttes, 5-seated body, with all latest improvements, car in perfect order, one year old; has done only 3000 miles. Price, £400. Owner leaving for seat of war. Apply Dr. Read, Tel. 486, Wahroonga.

Medical Appointments.

Dr. Sydney Fern has been appointed Medical Clinical Assistant at the Melbourne Hospital.

Dr. J. V. Griffith has been appointed Acting Medical Clinical Assistant at the Melbourne Hospital.

Dr. J. R. Smeal, Senior Medical Officer of the Melbourne Hospital of that Institution has been appointed Acting Medical Superintendent during the absence of Dr. J. T. Tait.

Dr. W. L. Millett, of Stannary Hills, Queensland, has been appointed Medical Officer at Chillagoe.

Births, Marriages, and Deaths.

The charge for inserting announcements of Births, Marriages and Deaths is 5s., which sum should be forwarded in money orders or stamps, with the notice, not later than the first post on Tuesday morning, in order to ensure insertion in the current issue.

Marriage.

HANKINS—JESSOPP.—On September 30, 1914, at St. Paul's, Beckenham, by the Rev. Robt. Hay, Canon of Brisbane Cathedral, George T. Hankins, M.R.C.S., L.S.A., of Warwick, Queensland, to Fanny Wynne, second daughter of the late Rev. John Jessopp, M.A., Vicar of St. Gregory's, Norwich.

Proceedings of Australian Medical Boards.

NEW SOUTH WALES.

The following persons have been registered under the provisions of the "Medical Act of 1867," as duly qualified medical practitioners:—

Dunn, William Alexander, M.R.C.S. (Eng.), 1910; L.R.C.P. (Lond.), 1910; F.R.C.S. (Edin.), 1914.
Lane, Raymond Charles, M.B., M.S., 1914, Univ., Sydney.
McIntyre, Fergus, M.B., 1914, Univ., Sydney.
Shirtliff, Edward Dickenson, M.R.C.S. (Eng.), 1891; L.R.C.P. (Lond.), 1891; L.S.A. (Lond.), 1888.
Kirkwood, Noel Edmund Barton, M.B., 1914, Univ., Sydney.

Diary for the Month.

Dec. 1.—New South Wales Branch B.M.A., Council Meeting.
Dec. 2.—Victorian Branch B.M.A., Annual General Meeting.
Dec. 11.—New South Wales Branch B.M.A., Ordinary Meeting.
Dec. 15.—New South Wales Branch B.M.A., Council Meeting.
Dec. 16.—Western Australian Branch B.M.A., Branch Meeting.
Dec. 22.—New South Wales Branch B.M.A., Committee Meeting.

Important Notice.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
QUEENSLAND. (Hon. Sec. B.M.A. Building, Adelaide Street, Brisbane).	Brisbane United F.S. Institute. F.S. Lodges at Longreach. F.S. Lodges at Warwick.
WESTERN AUSTRALIA. (Hon. Sec. 230 St. George's Terrace, Perth).	Swan District Medical Officer. All Contract Practice Appointments in W.A.
NEW SOUTH WALES. (Hon. Sec. 30-34 Elizabeth Street, Sydney).	Australian Natives Association. Balmain United F.S. Dispensary. Burwood District F.S. Institute. Carrington Lodge No. 75, P.A.F.S. of A., Randwick. Goulburn F.S. Association. Leichhardt and Petersham Dispensary. M.U. Oddfellows Med. Inst., Elizabeth Street, Sydney. N.S.W. Ambulance Association and Transport Brigade. N. Sydney United F.S. People's Prudential Benefit Society. Phoenix Mutual Provident Society. F.S. Lodges at Braidwood. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Mudgee. F.S. Lodges at Orange. F.S. Lodges at Parramatta, Granville, Penrith and Auburn. Killingworth Colliery, Newcastle. Seaham Colliery No. 1, Newcastle. Seaham Colliery No. 2, Newcastle. West Wallsend Colliery, Wallsend.
SOUTH AUSTRALIA. (Hon. Sec. 3 North Terrace, Adelaide).	The F.S. Medical Assoc. Incorp., Adelaide.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to the "Medical Journal of Australia" alone, unless the contrary be stated.

All communications should be addressed to "The Editor," "Medical Journal of Australia," B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.